Manitoba

Annual Report 1988 - 89

Agriculture

91-01318/

Minister of
Agriculture

Room 165
Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8

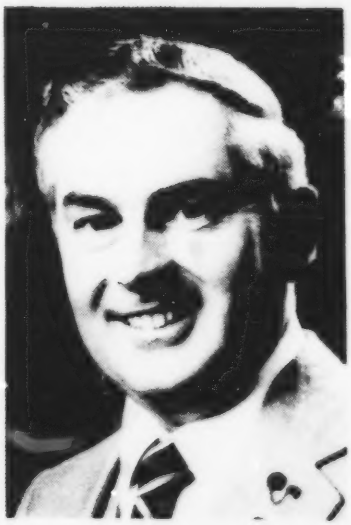
To His Honour,
George Johnson,
Lieutenant-Governor for
the Province of Manitoba

Your Honour:

I have the honour to submit herewith the Report of the Department of Agriculture for the period April 1, 1988 to March 31, 1989.

Yours truly,

Glen M. Findlay
Minister



Manitoba

Deputy Minister of Agriculture

Room 159
Legislative Building
Winnipeg, Manitoba, CANADA
R3C 0V8
(204) 945-3734

Honourable Glen M. Findlay
Minister of Agriculture
Province of Manitoba

Sir:

It is my pleasure to present the annual report of the Manitoba Department of Agriculture for the twelve month period ending March 31, 1989.

Respectfully submitted,

G.J. Lacomy
Deputy Minister

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Manitoba Agriculture

Executive and Directors

Executive

Honourable Glen Findlay, Minister

G.J. Lacorny, Deputy Minister

T. L. Pringle, Assistant Deputy Minister
Agricultural Development and Marketing Division

R.L. Baseraba, Acting Assistant Deputy Minister
Management and Operations Division

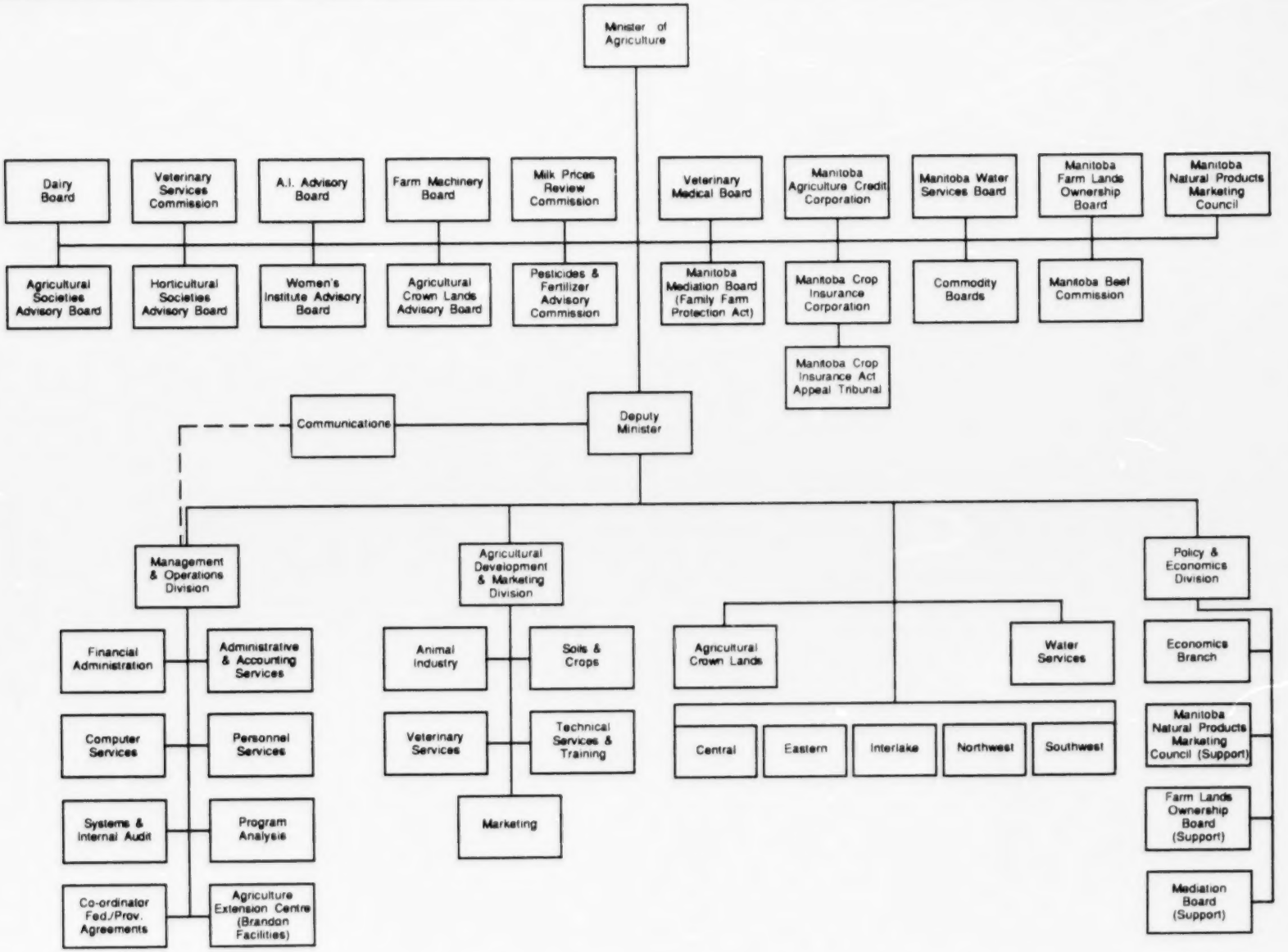
C. Lee, Assistant Deputy Minister
Policy and Economics Division

B. Dryburgh, Policy and Program Coordinator

Directors

Administrative and Accounting Services —
D.H. Burch (Act.)
Agricultural Crown Lands — J.L. Neabel
Animal Industry Branch — F.P. Baker
Communications — V. McNair
Economics — H. Gregory
Marketing — A.E. Gascoigne
Personnel Services — D.H. Burch
Soils and Crops — G.D. Webster
Technical Services and Training — R.M. Deveson
Veterinary Services — J.A. McPhedran
Manitoba Natural Products Marketing Council —
G.H. MacKenzie
Central — B.F. Manning
Eastern — D.I. Donaghy
Interlake — A.T. Dickson
Northwest — R. Chychota
Southwest — W. Digby

Organization Chart — Manitoba Agriculture



General Administration

Management Services

Administrative and Accounting Services

Administrative and Accounting Services provides professional management, accounting, financial and administrative support to all department programs and executive management. Services include financial analysis, general management consultation, system design, payment documentation, expenditure recording, revenue collection and analysis, and provision of management information for decision-making in program development and administration. The branch's activities include coordination of summer student recruitment, records management, administration of office space and equipment, telecommunications services, coordination of parking, and the administration of Freedom of Information requests.

During 1988/89, 24,521 payment documents were processed involving $92,850,800.00. In addition, 1,970 requisitions were authorized for office supplies and equipment services.

Purchasing transactions resulted in the processing of 950 orders, while an additional 903 direct purchase orders were issued.

Revenues for $14,284,100 were collected, most of it as fees and shared-cost receipts.

During the year about 50 contracts were prepared and processed for Agri-Food programs throughout the province. In addition, 66 summer student positions, including both S.T.E.P. and budget positions, were expedited.

The branch's primary goal is to help other departmental operations achieve their objectives by providing services to ensure efficient and effective departmental operations. General management advice and counsel to all levels of the organization continued to ensure compliance with audit and other central agency guidelines.

Internal Audit and Systems

The branch is responsible for planning and reviewing existing and proposed financial and procedural program systems of the department and its agencies. It also contributes to policy formulation by advising senior management on efficient and effective program delivery.

Activities for the year included:

- an increase in program audit reviews due to an addition to staff during the prior year.
- membership on the Department Audit Committee with the responsibility for dealing with all Provincial Auditor issues of the department and its related agencies.
- input on the development of the Tripartite Administration Unit and compliance requirements of the various National Tripartite programs in which Manitoba is involved.
- reviewing, assessing and advising on the administrative procedures being developed to deliver the Soil Conservation Agreement.
- involvement with various boards and committees to ensure adherence to central and departmental policies, and to advise on a number of proposals. Some of the groups and proposals the branch worked with include the Manitoba Beef Commission, Keystone Centre, Prairie Agricultural Machinery Institute, Western Cattle Company and Rural Development Institute.

Financial Administration

Financial Administration provided support to all divisions of the department. Activity centred on four major areas: annual estimates, sessional notes, cash flows and supplementary estimates.

The department's annual estimates for the 1989/90 fiscal year were compiled through close cooperation with Program Analysis and departmental directors. They were presented to the Minister and Executive for review before Cabinet presentation. The financial aspects of the sessional notes were prepared at the appropriation level. These described the budget details for discussion by the Minister in the Legislature.

Continued emphasis was placed on estimating the monthly cash flow of expenditures and revenue at the program level for more effective reporting. The goals of maximizing revenue from programs was conveyed again to all directors. During 1988/89 unforeseen and emergency expenditures occurred which required revised and supplementary estimates. In addition, financial reports, expenditure codes, unique codes and other related matters were also developed.

Personnel Services

Personnel Services provided advisory assistance to management and staff on the recruitment and selection of employees, wage and salary administration, employee relations, staff development and training, Affirmative Action and Workplace Safety and Health.

Training and Development added a number of new courses to the training calendar, including a three-stage orientation program. The Management Update Program featured courses on "Excellence in the Public Service" and a financial management forum.

In addition, wage and salary administration, training and development, and employee relations services were provided to the Manitoba Agricultural Credit Corporation, Manitoba Crop Insurance Corporation and Manitoba Beef Commission.

Computer Services

The Computer Services Branch provided for the maintenance, enhancement, development and optimal use of computerized systems within the department.

Enhancements were added to ongoing systems running on the Manitoba Data Services (MDS) and University of Manitoba main frames. These enhancements included changes to the Accounts/Receivable systems to calculate and collect interest on overdue client accounts.

The branch also provided maintenance service for all computer hardware used by department staff, including problem diagnosis and selection of repair vendors.

Development continued on the interactive mini computer systems at the Manitoba Crop Insurance Corporation and the Veterinary Services Branch.

The branch provided service to department staff for statistical analysis, graphics, procurement/installation of hardware and software, administration of electronic data processing funds, and management of word processing services.

Program Analysis

Program Analysis provides services to management in three general areas: (1) providing analysis and evaluation to ensure effective delivery of the department's programs and activities; (2) coordinating federal-provincial agreements relating to agriculture; and (3) providing management information and analysis support to help management decision-making.

Close liaison was maintained with senior executives, directors and managers in the development of program information in support of the department's budget estimates and to help with budget control. The branch was actively involved in leading the budget cycle portion of a financial management forum held in mid-March. Program Analysis worked with Financial Administration to prepare several budget-related documents, including: the sessional notes for the Minister's use in the Committee of Supply, and the "Supplementary Information for Legislative Review" document to assist M.L.A.'s in reviewing the department's estimates.

The branch worked with Administrative & Accounting Services to coordinate the development, implementation and maintenance of the department's overall Freedom of Information (F.O.I.) program. This activity included the completion of a Freedom of Information administrative manual for internal departmental use, as well as holding F.O.I. awareness sessions for personnel within the department.

Program Analysis coordinated the preparation of the document, "Policies and Programs for Agriculture." This document serves as an information resource for departmental staff, other levels of government, and interested members of the public. The branch completed a survey on department research and scientific related activities for the Government of Canada. As well, Program Analysis coordinated the department survey relating to province-state government interactions.

Agricultural Research

University of Manitoba

During the fiscal year, Manitoba Agriculture provided a grant of $875,500 to the University of Manitoba to support the university's agricultural research program. The grant was used to provide operational support for research projects in all major disciplines. These included agricultural engineering, animal science, entomology, food science, plant science and soil science. Funds were also used for the development and maintenance of the university's central research station at Glenlea.

Department of Agriculture
Expenditure Summary by Appropriations
Year Ended March 31, 1989

Sub-Appr'n Number	Service	Actuals $	Estimates $	Variance $	Explanation Number
03-1	ADMINISTRATION AND FINANCE				
03-1a	Minister's Salary	20,600	20,600	0	
	Executive Support				
03-1b-1	Salaries	374,500	352,600	21,900	
03-1b-2	Others	113,300	122,600	(9,300)	
03-1b-3	Policy studies	186,000	117,900	68,100	1
	Communications Branch				
03-1c-1	Salaries	343,700	415,500	(71,800)	
03-1c-2	Others	304,300	350,400	(46,100)	
	Finance and Administration Services				
03-1d-1	Salaries	693,600	787,900	(94,300)	
03-1d-2	Others	74,000	71,800	2,200	
	Computer Services				
03-1e-1	Salaries	248,700	254,400	(5,700)	
03-1e-2	Others	58,300	78,400	(20,100)	
	Personnel Services				
03-1f-1	Salaries	187,000	223,700	(36,700)	
03-1f-2	Others	23,200	24,500	(1,300)	
	Program Anaysis				
03-1g-1	Salaries	164,200	182,100	(17,900)	
03-1g-2	Others	11,000	13,500	(2,500)	
	Total vote 1	2,802,400	3,015,900	(213,500)	
03-2	MANITOBA CROP INSURANCE CORPORATION				
03-2a	Administration	5,551,700	4,495,600	1,056,100	2
03-2b	Canada-Manitoba Waterfowl Damage Compensation Agreement	114,900	300,000	(185,100)	3
	Total vote 2	5,666,600	4,795,600	871,000	
03-3	MANITOBA AGRICULTURAL CREDIT CORPORATION	10,382,200	21,885,200	(11,503,000)	4
03-4	AGRICULTURAL DEVELOPMENT AND MARKETING DIVISION				
	Administration				
03-4a-1	Salaries	90,700	91,300	(600)	
03-4a-2	Others	8,500	7,900	600	
	Animal Industry Branch				
03-4b-1	Salaries	1,663,700	1,675,000	(11,300)	
03-4b-2	Others	2,937,400	629,400	2,308,000	5
	Veterinary Services Branch				
03-4c-1	Salaries	1,435,200	1,460,300	(25,100)	
03-4c-2	Others	1,002,600	975,400	27,200	

Department of Agriculture
Expenditure Summary by Appropriations
Year Ended March 31, 1989

Sub-Appr'n Number	Service	Actuals $	Estimates $	Variance $	Explanation Number
	Soils and Crops Branch				
03-4d-1	Salaries	1,994,400	1,982,300	12,100	
03-4d-2	Others	1,128,600	1,081,200	47,400	
	Northern Development Agreement — Provincial				
03-4d-3a	Salaries	59,400	61,900	(2,500)	
03-4d-3b	Others	41,300	43,000	(1,700)	
	Technical Services and Training Branch				
03-4e-1	Salaries	1,741,100	1,745,100	(4,000)	
03-4e-2	Others	1,172,500	1,232,400	(59,900)	
03-4e-3	Agricultural Societies	529,000	530,200	(1,200)	
	Northern Development Agreement — Canada/Manitoba				
03-4e-4a	Salaries	83,100	107,900	(24,800)	6
03-4e-4b	Others	27,400	44,100	(16,700)	
03-4e-4c	Recoverable from Northern Affairs	(110,500)	(152,000)	41,500	
	Marketing Branch				
03-4f-1	Salaries	218,000	308,100	(90,100)	6
03-4f-2	Others	182,100	174,600	7,500	
	Total vote 4	14,204,500	11,998,100	2,206,400	
03-5	REGIONAL AGRICULTURAL SERVICES DIVISION				
	Northwest Region				
03-5a-1	Salaries	1,191,700	1,291,100	(99,400)	
03-5a-2	Others	328,900	352,400	(23,500)	
	Southwest Region				
03-5b-1	Salaries	1,677,500	1,690,800	(13,300)	
03-5b-2	Others	324,200	332,500	(8,300)	
	Central Region				
03-5c-1	Salaries	1,675,500	1,712,500	(37,000)	
03-5c-2	Others	324,800	333,400	(8,600)	
	Eastern Region				
03-5d-1	Salaries	1,057,500	1,079,100	(21,600)	
03-5d-2	Others	231,400	246,800	(15,400)	
	Interlake Region				
03-5e-1	Salaries	1,219,300	1,292,500	(73,200)	
03-5e-2	Others	287,300	292,800	(5,500)	
	Manitoba Water Services Board				
03-5f-1	Salaries	1,437,200	1,501,300	(64,100)	
03-5f-2	Others	(382,600)	458,500	(841,100)	7
	Agricultural Crown Lands Branch				
03-5g-1	Salaries	1,194,500	1,283,500	(89,000)	
03-5g-2	Others	588,800	822,900	(234,100)	8
	Total vote 5	11,156,000	12,690,100	(1,534,100)	

Department of Agriculture
Expenditure Summary by Appropriations
Year Ended March 31, 1989

Sub-Appr'n Number	Service	Actuals $	Estimates $	Variance $	Explanation Number
03-6	POLICY AND ECONOMICS DIVISION				
	Administration				
03-6a-1	Salaries	91,800	91,000	800	
03-6a-2	Others	14,100	15,900	(1,800)	
	Economics Branch				
03-6b-1	Salaries	564,100	643,500	(79,400)	
03-6b-2	Others	101,600	121,200	(19,600)	
	Manitoba Natural Products Marketing Council				
03-6c-1	Salaries	151,000	161,700	(10,700)	
03-6c-2	Others	29,800	40,200	(10,400)	
03-6d	Milk Prices Review Commission	30,600	29,900	700	
	Manitoba Farm Lands Ownership Board				
03-6e-1	Salaries	116,700	146,700	(30,000)	6
03-6e-2	Others	33,700	33,700	0	
03-6f	Agricultural Research Grant (University of Manitoba)	875,500	875,500	0	
	Rural Development Inst. Grant	100,000	100,000	0	
	Family Farm Protection Act				
03-6g-1	Salaries	230,900	203,600	27,300	
03-6g-2	Others	665,800	356,300	309,500	9
	Total vote 6	3,005,600	2,819,200	186,400	
03-7	FEDERAL/PROVINCIAL AGREEMENTS				
03-7a	Agri-Food Agreement	1,337,500	1,643,800	(306,300)	10
03-8	INCOME INSURANCE FUND				
03-8a	Beef Stabilization	118,600	5,391,700	(5,273,100)	11
03-8b	Hob Stabilization	4,289,800	4,796,200	(506,400)	12
03-8c	Sugar Beet Assistance	274,000	348,300	(74,300)	13
03-8d	Bean Stabilization	215,500	495,000	(279,500)	14
03-8e	Honey Stabilization	168,000	0	168,000	15
	Total vote 8	5,065,900	11,031,200	(5,965,300)	
03-9	DRUGS AND SEMEN PURCHASES	6,287,900	7,912,500	(1,624,600)	16
03-10	SPECIAL FARM SCHOOL TAX ASSISTANCE PROGRAM	11,081,800	12,000,000	(918,200)	
03-11	INTEREST RATE RELIEF PROGRAM	1,350,000	2,232,900	(882,900)	17
03-12	EMERGENCY DROUGHT RELIEF PROGRAM	16,958,000	18,300,000	(1,342,000)	
03-13	EXPENDITURES RELATED TO CAPITAL ASSETS				
013-13a	Capital Grants	4,848,500	4,850,000	(1,500)	
03	Total Department	94,146,900	115,174,500	(21,027,600)	

Department of Agriculture
Expenditure Summary by Appropriations
Year Ended March 31, 1989

Sub-Appr'n Number	Service	Actuals $	Estimates $	Variance $	Explanation Number
03-1	ADMINISTRATION AND FINANCE	2,802,400	3,015,900	(213,500)	
03-2	MANITOBA CROP INSURANCE CORPORATION	5,666,600	4,795,600	871,000	
03-3	MANITOBA AGRICULTURAL CREDIT CORPORATION	10,382,200	21,885,200	(11,503,000)	
03-4	AGRICULTURAL MARKET AND DEVELOPMENT	14,204,500	11,998,100	2,206,400	
03-5	FARM AND RURAL DEVELOPMENT	11,156,000	12,690,100	(1,534,100)	
03-6	POLICY AND ECONOMICS	3,005,600	2,819,200	186,400	
03-7	FEDERAL/PROVINCIAL AGREEMENTS	1,337,500	1,643,800	(306,300)	
03-8	INCOME INSURANCE FUND	5,065,900	11,031,200	(5,965,300)	
03-9	DRUGS AND SEMEN PURCHASES	6,287,900	7,912,500	(1,624,600)	
03-10	SPECIAL FARM SCHOOL TAX	11,081,800	12,000,000	(918,200)	
03-11	INTEREST RATE RELIEF PROGRAM	1,350,000	2,232,900	(882,900)	
03-12	EMERGENCY DROUGHT RELIEF PROGRAM	16,958,000	18,300,000	(1,342,000)	
03-13	CAPITAL ASSETS	4,848,500	4,850,000	(1,500)	
03	Total Department	94,146,900	115,174,500	(21,027,600)	

Explanatory Notes for
Expenditure by Appropriation
Summary

Year Ended March 31, 1989

1. An unexpected milk lab suit with the Manitoba Milk Producers Marketing Board during 1988/89 resulted in expending $185,300 on legal bills.
2. Increased activity in loss adjusting due to drought. This required more per diem wages and expenses. Inspections reached approximately 32,400 vs. 12,800 the year before.
3. Drought damaged crops and some earlier harvesting reduced the damage done by the bird migration.
4. a) Allowance for Doubtful Accounts
   - Unspent $6,061,400

   This reduction is attributed to an improvement in the market price for grain and payments from Western Grain Stabilization and the Canadian Wheat Board.

   b) Special Farm Assistance
   - Unspent $3,035,900

   The contingent liability expected for the year is voted, although a substantial portion was not realized. Refinancing and other alternatives have proven satisfactory in most cases to date. As time continues, it is expected that these solutions will not be sufficient and increased expenditures will occur.

   c) Loan Guarantees
   - Unspent $1,548,200

   Draw of funds from the Department by M.A.C.C. is based on the amount of guarantees being called. Due to economic conditions fewer loans and guarantees were issued than anticipated.

   d) Net Interest Cost
   - Unspent $463,000

   Less draw of funds from the Department due to unanticipated land sales and increased interest on investments due to higher collections than expected.

   e) Young Farmer Rebate
   - Unspent $269,500

   Continuing poor economic conditions resulted in a smaller loan portfolio than expected and therefore fewer young farmers qualifying for rebates.
5. An unbudgeted settlement of litigation with the Manitoba Milk Producers Marketing Board resulted in a change to the 1988/89 appropriation for $2,254,000.
6. Decrease in salaries expended is a result of temporary staff vacancies.
7. A $677,400 credit adjustment to the valuation allowance for the Manitoba Water Services Board was made due to the improved financial position of the Board.
8. During 1988/89 lessees, who are reimbursed for improvements they have carried out to leased Crown Land, did not complete as much work as anticipated.
9. More farmers than expected submitted their cases to the Mediation Board. Extra funds were required for per diem assistance for panels, board activity and related expenditures. 100 cases were expected but 356 cases were dealt with in 1988/89 with still more carried over to 1989/90.
10. Certain planned activities did not materialize due to severe drought conditions and because requirements for demonstrations were reduced in the regions. Drought conditions also contributed to incremental reductions in expenditures in a number of the Regional Crops and Soil Conservation projects. Unanticipated involvement of commercial organizations in Crop Management Demonstrations reduced costs for both projects and co-operating farmers.
11. The primary reason is a $4,000,000 credit adjustment to the valuation allowance for the Manitoba Beef Commission due to the improved financial position of the Commission. Loan forgiveness is also underexpended due to fewer cancellations and less shortfall in each cancelled account than expected.

12. Reduced premiums are a result of lower market prices. At April 1988 prices were $132,920 per kg, in March 1989 they were $114,230.
13. Reduced premiums are a result of a drought which severely reduced yield.
14. Reduced premiums are a result of lower bean acreage than expected and the drought which severely reduced the yield.
15. Manitoba entered the Tripartite Plan during the 1988/89 fiscal year. Hence, the estimate of expenditures contained no reference to the Honey Stabilization Plan.
16. Growth for 1988/89 did not meet expectations. This was due to drought related factors and increased competition for Drugs and Semen. In Drugs, suppliers were offering "delayed billing" which was later implemented by the department in the fall of 1989. In Semen, competitors' increasing market share actually reduced sales in 1988/89 compared to 1987/88 by 13.6%.
17. The majority of the difference is explained by a lower Allowance for Doubtful Accounts than expected because of an improvement in the status of accounts.

General Support Services

Manitoba Natural Products Marketing Council

The objective of the Manitoba Natural Products Marketing Council is to ensure the effective control, regulation and promotion of agricultural products designated within the marketing plans of seven producer-elected boards and two appointed marketing commissions. The Council supervises the activities of these marketing agencies and serves as an appeal body for any person affected by the decisions of marketing boards or commissions.

Effective August 3, 1988, four new members were appointed to the Council.

The Manitoba Council convened 16 regular meetings in 1988/89. Its involvement in each of the producer boards and marketing commissions is highlighted below.

The Manitoba Beef Commission

The Council approved one amendment to the Slaughter Cattle Marketing Fee Regulation. The change exempts direct sales by contract holders from payment of marketing fees. However, central-desk selling services remain an alternative marketing mechanism.

The Council heard five appeals against Commission decisions. Three of these were dismissed, and two were granted.

The Manitoba Broiler Hatching Egg Commission

The Council agreed to the entry of British Columbia as a full participant in the Canadian Broiler Hatching Egg Marketing Agency. It also gave approval in principle to amendments to the federal-provincial agreement regulating the movement of chicks and eggs from an unregulated area into a regulated area as a condition for import controls.

The Council heard one appeal against the Commission; it was dismissed.

The Manitoba Chicken Broiler Producers Marketing Board

The Council met with Board representatives to discuss several administrative issues. It approved minor amendments to the Board's Quota Order, Exemption Order for specialized marketings, and Penalty Levies Regulation.

The Manitoba Egg Producers Marketing Board

The Council met with a delegation from the Board to review national marketing and administrative issues. It issued an amendment to the Laying Hen Penalty Levies Regulation respecting designated non-registered producers.

The Council heard two appeals against the Board; both were dismissed.

The Manitoba Hog Producers Marketing Board

In April 1988, the Council approved a reduction in the hog special promotion levy from 0.2% of sales to 0.1% of sales.

The Manitoba Honey Marketing Board

No discussions on major issues involved the Board during the year.

The Manitoba Milk Producers Marketing Board

The Council approved various regulatory amendments relating to milk quality, milk promotion and quota transfer. It also met with delegations of the Board on several occasions to develop and put in place a market-clearing quota re-allocation system, effective March 1989.

The Council heard five appeals against the decisions of this Board; three were dismissed and two granted.

The Manitoba Turkey Producers Marketing Board

The Council approved a Quota Order amendment, to update the list of registered producers.

The Manitoba Vegetable Producers Marketing Board

The Council approved amendments to the Root Crop Quota Order and Potato Quota Order with respect to growers with small acreages of regulated product. In March 1989, the Council met with a Board delegation to review the Board's financial plans.

The Council received a proposed marketing plan from the Keystone Vegetable Producers Association which would regulate the processing of potatoes for french fries. A series of industry consultations were carried out and a referendum among producers was held. About 68% of the producers voted in favour of the marketing plan. The establishment of the plan is now under review.

PAMI

The Prairie Agricultural Machinery Institute (PAMI) successfully completed the first year of their recently developed Five Year Strategic Plan. This plan was requested, and subsequently approved, by the governments of Manitoba and Saskatchewan. Its purpose is to provide a focus for PAMI's future endeavors. Implementation of the plan will:

- promote government's current priority placed on agriculture.
- provide a good return on investment because government funding is effectively levered.
- assist in the creation of jobs in rural communities through applications of engineering expertise to agricultural and non-agricultural sectors.
- help farm machinery manufacturers diversify into non-agricultural industries.
- provide programs which contribute to reduced farm costs and increased productivity in the agricultural sector.

Evaluation continued to play a major role as a full slate of agricultural machines were tested. Extension activities also continued. In addition, preparation began on a hay and forage clinic, which will be presented in the coming year.

Greater emphasis was placed on securing more research and development opportunities. PAMI now has a full-time Business Development Engineer to promote their services to various government agencies and private industry. The response has been favorable and a number of revenue generating projects were undertaken during the year.

This was the first full year that PAMI operated without the Lethbridge station, as a result of the Alberta government's decision to withdraw from the original three province agreement. The working relationship with Lethbridge remains intact through a "memorandum of understanding" established with PAMI during the year. All three stations continued to work within their previously established areas of expertise.

The Manitoba government made a grant of $425,400 to PAMI for the year.

Manitoba Farm Machinery Board

The Manitoba Farm Machinery and Equipment Act is administered by the Farm Machinery Board and department staff. This involves the Board in all segments of the farm implement industry, including producers, dealers, manufacturers and distributors.

The Board provides information and advice on the financial, mechanical and functional aspects of farm machinery. Repair parts sourcing assistance is available through the Board when badly needed parts cannot otherwise be obtained.

Repossession – Farm machinery and equipment financed by means of a lien note cannot be repossessed without permission from the Board. In 1988/89, lenders using this type of a security document submitted 132 applications for leave to repossess. Every application is thoroughly investigated. Through discussions with the purchaser and lender, the Board is usually able to negotiate a repayment agreement that meets the needs of both parties.

Complaints – In 1988/89, 121 complaints were registered with the Board. All complaints were properly researched and resolved. In many cases, a compromise was worked out with Board assistance.

Common problem areas included:

- alleged failure of a farm machine to perform its intended function;
- prior evidence of a mechanical problem, but failure occurs after the warranty has expired;
- unavailability of repair parts during a critical period in the production cycle;
- disputes arising from used machinery purchases (although used equipment is exempt from the Act, staff advised producers of methods to resolve disputes);
- contractual disagreement between purchaser and seller.

Because farm productivity relies directly on properly operating equipment, the Board strives to respond with immediate assistance whenever machinery failure occurs.

Licences – On March 31, 1989, 395 dealer licences and 142 vendor licences were in force. Each issued licence carries a supporting penal bond. The Board offers a bonding service through the Farm Machinery Act Fund. Under the Fund, 91 dealers and 38 vendors made use of this service.

Board Activities – In 1988/89 the Board held five meetings to consider applications for leave to repossess and other matters. The Board's Credit Committee met five times to judge applications for bonding through the Farm Machinery Act Fund.

Agricultural Implement Industry – Drought conditions seriously affected the sale of farm machinery, particularly haying and harvesting equipment. As a result, Manitoba dealers had problems managing in these difficult times. While reduced farm income has created hardship for all agri-businesses, the dealer network remains adequate to serve the needs of the Manitoba farmers.

Communications

The Communications Branch is Manitoba Agriculture's public information unit. Branch staff work closely with department specialists to plan, co-ordinate and carry out the department's communications activities.

Manitoba Agiculture's overall communications objective is to provide rural and urban Manitobans with relevant and timely information about the department's policies, programs and services, in addition to producing technical information for farmers.

Press Releases: Over 250 news releases were sent out during the year.

Publications: More than 200 publications and print projects were completed. Communications staff provided services ranging from planning, writing, editing and design, to co-ordination of printing and distribution. In 1989, well over 50,000 print pieces were distributed, including leaflets, brochures and fact sheets.

Radio: The radio program "Country Comment" continued to be broadcast on nine provincial radio stations, to a daily audience of 25,000 to 30,000 adults.

Television: Branch staff produced a series of 12 short television items broadcast weekly during the fall and winter in the Dauphin, Brandon and Portage la Prairie areas. The branch was also involved in the production of five video items.

Audio-Visual: The branch assisted staff in obtaining photography, design, graphics, video production and slide sets. If outside suppliers were required, staff planned and co-ordinated those projects. Many existing slide/tape sets were revised and updated for future use.

The distribution centre stocked 223 films, slide sets and video tapes in 1988/89.

Advertising: The branch monitored the department's advertising and continued to plan and produce campaigns for department programs and special events. Twenty-one campaigns were conducted during the year in addition to regular regional advertising.

Homestudy: Farm Planning '89 was the tenth annual homestudy course produced and delivered by Manitoba Agriculture. Over 1,500 applicants and a positive follow-up evaluation indicated a high degree of interest and satisfaction.

Agri-Food Projects: Communication activities related to the department's many Agri-Food projects continued to play an important role in branch activities. One major project involved the organization and stocking of pilot video libraries at five locations in rural Manitoba.

Economics

Staff of the Economics Branch compiled, analyzed and disseminated production, marketing and other statistical information for use by producers, other departmental and governmental staff, agribusiness and the public. The branch also provided resource support to department executive for use in program review, development and evaluation plus market analysis and price forecasting.

The branch was also responsible for providing leadership and coordination of long-term policy and program development within the department.

Statistics

The Statistics Section's major responsibility was to acquire and provide selected data on Manitoba agriculture. This section, in cooperation with the Economics and Market Analysis Section, assists Statistics Canada in the preparation of final estimates for many of the crop and livestock statistics.

During the year the following publications were prepared and distributed: Monthly Agricultural Conditions Reports; Weekly Crop Reports; A Look at Manitoba Agriculture; Farm Income Outlook; statistical reports on farm finances, including receipts, expenses, income, value of production, bankruptcies, land values, wages and price indices; statistical reports on crop and livestock production; reports on corn, vegetables, special crops and herbicides compiled from surveys. The 1987 Yearbook of Manitoba Agriculture was also prepared.

Economic and Market Analysis

Analysis staff were responsible for the research and provision of market information, analyses and forecasts for the major agricultural commodities and food. Supply, demand, price forecasts and impact analysis were included in the reports. Manitoba Agriculture's Outlook Conference was held in conjunction with the Weed Fair at Brandon and Winnipeg during January.

The analysis of domestic and international markets was also disseminated to staff, farmers and agribusiness through the Manitoba Markets Weekly Report. The report provides up-to-date market information on crops and livestock, and periodic outlook reports and updates on pertinent federal and provincial programs. Staff took part in media interviews and numerous regional meetings and seminars throughout the province.

Policy Analysis

The Policy Analysis Section conducted research and analyzed issues, concerns, problems and trends in

agriculture. It also assisted in the department's long-range program and policy planning. Its responsibilities included analyzing conditions and factors affecting the agricultural and rural communities; evaluating departmental programs and policies and their impact on the agricultural economy; and participating in negotiations and discussions on interdepartmental and intergovernmental projects and agreements.

During 1988/89, the section participated in:

- negotiation of Manitoba's participation in the beef, lamb and dry edible bean tripartite price stabilization plans;
- analysis and dissemination of information on provincial and national stabilization plans;
- an interdepartmental review and analysis of the Canada-United States Free Trade Agreement and the Uruguay Round of the General Agreement on Tariffs and Trade;
- several multi-disciplinary studies of agricultural land and water development and conservation projects;
- a research project regarding farm management options in periods of low grain prices;
- implementation of commodity strategy profiles.

Marketing

The objectives of the Marketing Branch are to identify and develop new markets, maintain and expand existing markets and improve the demand for provincially grown and processed food products.

In 1988/89, staff helped co-ordinate and host several incoming foreign missions. A total of 35 missions visited Manitoba from countries such as Japan, China, Thailand, Philippines, Malaysia, Algeria, USA, Venezuela, Colombia, Kenya, Israel, Spain and Mexico.

The York-Benimaru Foundation from Koriyama again sponsored the farm visit of 27 Japanese students and three teachers to Manitoba. The branch co-ordinated this event with assistance from the 4-H section of the Technical Services Branch.

The Honourable Glen Findlay, Minister of Agriculture, led a ministerial mission from Manitoba to Japan. Mission members included executives of the Manitoba Hog Producers Marketing Board, Granny's Poultry Co-operative (Manitoba) Ltd., and the Marketing Branch.

Marketing initiatives in the livestock sector included participation in the Canadian Western Agribition in Regina, Ag Ex in Brandon and Hog Days in Winnipeg. Branch staff co-operated with private firms in the development of export business for breeding stock.

Continued liaison was maintained at the federal level with Agriculture Canada and External Affairs, and provincially with the Department of Industry, Trade and Tourism. The branch also has membership on the Federal/Provincial Market Development Council.

Promotion of Manitoba agricultural commodities continues to be a major area of branch activity. The branch helped marketing boards and producer associations develop and produce brochures on vegetables, grains, pulses, oilseeds, forages, livestock, U-Pick fruits, as well as an assortment of recipe booklets.

The Manitoba Food Products Directory was again updated and distributed worldwide. The branch produced a new publication titled "Manitoba Export Directory," which featured a brief listing and description of the varied Manitoba products available for worldwide export. The directory was printed both in English and Japanese. The branch initiated and co-ordinated the involvement of marketing boards and producer associations in six mall shows and exhibitions in Winnipeg and Brandon.

Manitoba Milk Prices Review Commission

The Commission continued to administer The Manitoba Milk Prices Review Act, most recently amended in February, 1988. A detailed account of the Commission's activities can be found in its 1988/89 Annual Report, printed under separate cover and available from the Commission's office at:

903-401 York Avenue
Winnnipeg, Manitoba
R3C 0P8
Phone: (204) 945-4935
Fax: (204) 945-6134

The Manitoba Water Services Board

The Manitoba Water Services Board is responsible for water related activities through the following programs:

1. *Municipal Water and Sewage:* The Board provided technical and financial assistance on 39 municipal water and sewer projects in 1988/89. Of the $8,453,000 in total construction expenditures, $3,485,000 was in the form of grants. Twenty-one projects were substantially completed during the year.
2. *Community Water Source Development:* Technical assistance was provided on 51 projects. The Board paid about $93,500 in rebates to local governments on 39 projects involving development of water sources from which farmers and others may haul or pipe water.

3. *Agricultural Community Water and Sewage:* The Board provided technical assistance on 18 community projects during the past year. Rebates totalling about $225,000 were provided to local authorities for 12 projects.
4. *Agricultural Area Water Pipeline:* During the past year several pipeline projects were investigated and $82,000 of rebates were paid out on three systems.
5. *Drought Proofing Projects:* Due to the drought additional funding was made available and the following projects were carried out:

Farm Water Source	67 projects	$114,400
Community Water Source	14 projects	80,500
Agricultural Area Water Pipeline	11 projects	561,400
Community Water and Sewer	2 projects	20,200

On-Farm Water Services

1. *Water Source Development:* A total of 2,853 requests for technical assistance for farm water source development were processed, and financial assistance totalling about $68,600 was provided to 39 farmers to help develop satisfactory water sources in situations that did not qualify for PFRA assistance.
2. *Irrigation:* During the year, about $9,106 was provided to five farmers to help develop satisfactory irrigation systems.

Dugout Filling

During 1988/89 the equipment rental charge was $350 for filling normal-sized dugouts with the pumping distance of up to 1 1/4 mile. An extra charge of $200 was assessed for each additional 1 1/4 mile of pipe required. A total of 504 dugouts were filled.

Agricultural Representative Service

A major mandate of the department is to extend the latest in useful, accurate and timely agricultural information to producers. Manitoba's agricultural representatives provide the vital link between researchers, specialists and farm families. They extend a wide range of information on production, management and marketing.

Counselling of farmers and farm families on farm management, farm finances and other areas of need was a major role for all agricultural representatives. Computer equipped offices have made this service more efficient. Agricultural representatives work with groups, but also provide one-on-one service in dealing with many on-farm problems.

Agricultural representatives also provide feedback to the department's administration and specialists. This information includes updates on current conditions in rural areas, current needs for research, testing and other services, and evaluations on the effectiveness of the department's programs and policies.

Agricultural technology is a prime concern, but they are also heavily involved in rural community development through 4-H clubs, commodity groups, farm business groups and other district organizations.

Programs where clients sought participation or information included the Greenfeed Program, the Livestock Drought Assistance Program, the Canadian Crop Drought Assistance Program, the Manitoba Beef Commission/Beef Tripartite, Excess Summerfallow Compensation Program and the Canada/Manitoba Crop Insurance Program.

Crown Corporations, Boards and Commissions

Manitoba Agriculture is affiliated with several organizations serving the needs of the agricultural community. These include the Manitoba Crop Insurance Corporation, Manitoba Agricultural Credit Corporation and Manitoba Farm Mediation Board.

The activities of these organizations during 1988-89 are described in their respective annual reports.

Livestock Management and Marketing

The objectives of the Animal Industry Branch are to provide technical and specialist services and information to regional extension staff, to enhance the production and marketing of Manitoba's livestock, and to administer the regulations under several statutes relating to livestock production and marketing.

The branch is comprised of six sections: Beef, Dairy, Nutrition, Poultry & Feed Analysis, Sheep and Swine.

All sections are engaged in comprehensive extension activities. Staff attends regional producer meetings, commodity group workshops, demonstrations and seminars as principal speakers or technical advisors. Staff also communicates with clientele through mail, telephone and on-farm consultation. In addition, timely technical information is disseminated through news releases, newsletters, fact sheets, bulletins, and radio and TV. The extension activities cover all aspects of production and marketing, including nutrition, housing, breeding, disease control, genetics, marketing, record keeping, and husbandry and management practices.

The branch coordinates many provincial and federal/provincial livestock programs, relying heavily on the cooperation of regional staff in the process.

Staff was involved in a variety of industry activities, including:

- formation of the Manitoba Livestock Performance Testing Board and its subsequent takeover of the data processing function of the federal/provincial Record Of Performance (ROP) program for beef, sheep and swine from Agriculture Canada. The facility is housed in an office of the Animal Industry Branch and the transfer of the data processing for all three species is now complete.
- development of seminars designed to give officers in lending institutions such as banks and credit unions a better understanding of their clients' needs and problems. The seminars provided basic information about production and marketing practices and costs of production estimates for various livestock commodities. These seminars were well attended. More than 100 bank managers and credit officers attended beef seminars in five different locations. Two seminars on swine attracted about 100 financial officers. A similar program is being developed for the dairy industry.
- installation of Near Infrared Reflectance (N.I.R.) equipment in the Feed Analysis Laboratory. This project was carried out in cooperation with the Manitoba Crop Insurance Corporation. This state-of-the-art equipment allows rapid analysis of forages with significant reduction in turnaround time in reporting results.
- establishment of a new swine artificial insemination centre.
- the successful conclusion of a longstanding legal dispute with the Manitoba Milk Producers Marketing Board (MMPMB).
- the transfer of the compositional analysis of milk for payment and milk recording purposes to the new MMPMB laboratory.
- development of a regulation governing the bonding and licensing of livestock dealers and their agents. The regulation was implemented April 1, 1989.
- presentation of information throughout the province aimed at alerting livestock producers to the increasing significance of the Animal Rights Movement.

Beef

Extension

Five meetings of the Beef Production and Marketing Strategy Team were held.

A four-day International Breeders School attracted producers from four provinces.

Publications developed by staff included updates on three fact sheets, developing a beef management calendar, producing a Beef Quarterly for a technical update for professionals, and producing a quarterly (Performance for Profit) for producers and staff. In addition, government and industry activities were highlighted in monthly strategy reports.

Production information packages were developed for regional staff on marketing, performance testing and artificial insemination.

The Annual Beef Seminar in Brandon and the Feedlot Seminar in Portage la Prairie were well attended.

A Manitoba Feedlot Survey and listing was completed.

Throughout the province, specialists helped livestock producers deal with problems of feed and nutrition, pasture management and water shortages that have resulted from the drought conditions, especially in the central and southwest regions.

Regulatory

There were 164 new brand licenses and 841 renewals issued in 1988. Over 4,000 brands are now registered.

Twenty scale checks at abattoirs and packing plants were made.

In addition to 65 farm evaluations of finished cattle for the Beef Commission, assistance was given in the auditing process of the Livestock Feed Security Program.

Genetic Improvement

The beef ROP award, initiated by the branch to recognize the outstanding achievements of individual breeders, was awarded to Harry Airey of Rivers.

Federal/Provincial ROP

The Beef Section is cooperating closely with the Livestock Performance Board in program development, expansion and extension. Staff is helping to develop data transfer systems which will allow the Board a direct transfer of information to producers and extension staff in the field. Beef Section staff have also begun working with University of Manitoba staff to develop systems using ROP information as a basis for projecting production levels from different breed combinations in different environments. Once developed, this procedure should give producers an edge in matching breeds to their resources. Section staff took part in four provincial advisory ROP meetings and the annual national advisory meeting.

Genetic improvement programs initiated and conducted by the branch are the Progeny Proving Program (PPP) and the Bull Test Station Programs. A total of 1,244 bulls representing 12 breeds were tested in seven different stations throughout the province. PPP continues to stimulate better record keeping and the use of artificial insemination through the offering of semen from the top-gaining test station bulls and industry reference sires to cooperating herd owners.

Technical and extension support was given to the Federal/Provincial ROP program, as well as an abridged program.

The section coordinates the Agri-Food Genetic Evaluation Project. Its purpose is to identify low-cost genetic and management factors that can be manipulated to increase herd production. There are 175 producers with 10,500 cows taking part in the program. The project has been expanded to include several management features and has been used to develop regional benchmarks. Staff have been heavily involved in this project and will continue with it beyond the ERDA termination date.

Beef producers in many parts of the province faced several critical and serious threats, including the drought-related problems of insufficient pasture growth, depleted water supply and reduced yield of forages for winter feed. Staff were involved in implementing the federal-provincial Greenfeed program, which was a key factor in minimizing cow herd reduction as a result of the drought.

Marketing – Beef Breeding Stock

The Marketing Branch advised the industry on export marketing opportunities and responded to off-shore inquiries on sourcing livestock from Manitoba. Staff helped exporters and beef breeding associations follow export procedures and prepare export quotations.

A major beef shipment to Mexico was arranged with the assistance of marketing staff. The branch also helped co-ordinate and host eight incoming foreign trade missions.

Dairy

Farm and Plant Inspection

In its regulatory role of assuring the quality and safety of Manitoba milk and milk products, the branch maintained its dairy farm, plant and milk depot inspection programs. Farm inspectors made a total of 2,494 visits, as well as 921 telephone contacts and 344 plant and milk depot inspections. Seventy-two consumer complaints were investigated.

The annual three-day bulk milk graders course and four-day milk receivers course were held in November, with a total of 19 in attendance. Six refresher courses were held throughout the province for licensed graders; 85 attended.

The branch has placed pasteurization evaluation and control at the highest priority level and has intensified its review of in-plant critical points which could be related to post-pasteurization contamination. Examination for adequacy of all process records and processing installations has been included in inspection protocol. Timing of HTST units and testing and sealing of control pumps, flow diversion devices, safety thermal limit recorders, time relay switches and pressure differential control systems are an essential part of the department's control system.

Including seminars and meetings, 126 additional calls were made to processing plants regarding product quality. Staff also conducted check tests at creameries, evaluated 114 bulk milk wash-up stations, inspected eight margarine storage facilities and selected margarine samples for quality and composition analyses.

Staff again conducted a series of flavor panels for all bulk milk graders to improve quality of milk received at Manitoba dairy plants. For the first time, staff also presented an intensive training course for milk plant receivers.

The Provincial Dairy Laboratory performed 51,595 routine operations in 1988/89, analyzing milk and milk products for micro-organisms, antibiotics, added water and effective pasteurization. In addition, somatic cell counts, indicating the likelihood and severity of mastitis in a herd, were conducted monthly on herd milk samples. Compositional analyses for producer and processor payment and milk recording purposes and for finished products totalled 223,926.

Other analyses included phosphatase determinations as a measure of adequacy of pasteurization, yeast and mould checks on dairy products, proteolytic counts on butter and psychorotrophic bacteria analyses on fluid milks as a control on post-pasteurization contamination.

Milk Recording

Milk recording programs help producers keep records of production and milk composition from individual cows. These records are used in planning breeding and culling programs, and in identifying individual animals. They provide the basic information needed for making sound management decisions. These programs also supply information used for genetic purposes in sire proving and selection for genetic improvement.

For many years milk producers have had a choice of three testing programs:

1. Record of Performance: administered by Agriculture Canada.
2. Dairy Herd Improvement Program: administered by local Dairy Herd Improvement Associations and supported by Manitoba Agriculture.
3. Owner/Sampler Program: administered by Manitoba Agriculture.

Enrolment in these programs has been fairly static for several years, with about half of Manitoba's dairy herds taking part.

During the year government staff and producers made a considerable effort to develop a non-profit organization to administer an integrated service. The mandate of this organization, to be known as the Manitoba Milk Recording Corporation, is to operate an effective and efficient milk recording program. The corporation would aim to secure participation of 80% of the provincial dairy herd. It is anticipated that all three programs will be integrated during 1989. Financial requirements for the organization will be obtained through producer fees, check-offs and federal and provincial grants. The two levels of government would also provide start-up funds.

Extension

The Somatic Cell Count Reduction Program, instituted by the branch in 1987, continues to be a high priority program. A high somatic cell count in herd milk indicates mastitis and reduced milk production of cows within the herd.

In addition to holding further farm clinics and publishing appropriate educational material, staff are working directly with those producers exhibiting excessive counts. Results are encouraging, with a reduction of nearly 20% in bulk tank somatic cell count in 1988. This reduction is a result of the efforts of the department and a penalty program instituted by the Manitoba Milk Producers Marketing Board.

Marketing – Dairy Breeding Stock

The Marketing Branch worked closely with local agricultural exporters attempting to establish markets in China for dairy breeding stock, semen and embryos. In addition, seven incoming trade missions were hosted by the branch.

In response to an increasing demand for dairy cattle in international markets, staff continued to work closely with producer breed associations to develop export markets. Several inquiries were received from off-shore markets, including the Pacific Rim and Central America, regarding the availability of dairy stock for export.

Swine

About 1,300 people attended Manitoba Hog and Poultry Days in Winnipeg. This first-ever joint event between the swine and poultry industries was organized by a committee of industry and government representatives. The Manitoba Pork Institute, Manitoba Egg Producers Marketing Board, Manitoba Chicken Broiler Producers Marketing Board, Manitoba Turkey Producers Marketing Board, Manitoba Broiler Hatching Egg Commission and Manitoba Hatchery Association provided financial assistance. The two-day event featured educational seminars, carcass and egg quality contests and auction, and 116 commercial exhibitors.

The annual Manitoba Swine Seminar, a two-day event featuring international experts in swine housing, health, nutrition and behaviour, was held in Winnipeg with 250 people attending. Two extra training seminars were held for related industry and government staff. These seminars addressed the topics of diagnosis of swine reproductive problems and basic concepts of swine and poultry barn ventilation. Each attracted about 50 people.

The Manitoba Swine Fact Sheet service continued, with six new publications distributed to 900 subscribers and an additional six prepared for future distribution. The Manitoba Swine Update, a quarterly management newsletter distributed to all producers and industry personnel, resumed publication. A Manitoba Swine Records Service was initiated with the publica-

tion of a manual record keeping package aimed at commercial producers. During the year, 120 packages were distributed. Another new service, testing of ground swine feeds to help producers choose and run milling equipment properly, was initiated during 1988/89.

Eight producer meetings were organized with regional staff; about 400 persons attended.

Staff spent considerable time in intensive consultation with producers referred for assistance by credit agencies.

Genetic Improvement

Manitoba Agriculture participates in the Federal/Provincial Swine ROP Program. During 1988, 4,421 animals from 36 herds were evaluated for carcass quality and growth rate under the program's home test section. A total of 130 boars were evaluated under the station test section. The station resumed operation in June after an eight-month closure due to transfer of responsibilities. Ongoing training and support was provided to staff and producers involved in ultrasonic evaluation of backfat thickness through a one-day training workshop.

A swine herd health classification program aimed at the seedstock industry is due to be put into place pending final approval.

Staff worked extensively with the artificial insemination (A.I.) centres in the promotion of A.I. and in designing and implementing an Agri-Food Project aimed at training inseminators. Two one-day A.I. training courses were presented by staff, who also assisted in an overseas A.I. boar purchasing mission.

Agri-Food Projects

Two projects related to swine operated during the year. The Swine Artificial Insemination Technician Service continued with a total of 721 inseminations performed in 18 herds. Staff made numerous farm calls to promote the service and recruit new participants. A joint government-industry steering committee met three times to provide guidance and future direction for A.I. in the province. Staff worked closely with swine A.I. centre operators to draft a new project to take effect in the new year.

Eight trials involving four types of feeders were carried out under the Swine Self-Feeder Assessment Project. Results were published in the popular press as well as the Manitoba Swine Update newsletter. Project results were also presented at two meetings attended by about 100 people.

Marketing – Swine Breeding Stock

The Marketing Branch assisted in the establishment of Northern Manitoba Breeders Canada Co., Ltd., a world class swine breeding operation funded by Japanese investment.

Marketing staff assisted incoming missions from Thailand, Japan, Philippines, Colombia, Mexico, Venezuela and Malaysia that were interested in purchasing Manitoba breeding stock.

Price quotations were prepared in response to offshore inquiries. Assistance with documentation and transportation arrangements was provided for export shipments.

The branch advised the Manitoba Swine Breeders Association and swine breeders on international marketing opportunities for swine breeding stock. Staff also co-ordinated and participated in a producer mission to attend the International Pork Congress in the United States.

Marketing – Pork

Promotion of Manitoba pork in the Japanese market was enhanced through participation in Foodex '89, one of the largest food trade shows in the Pacific Rim area. The Marketing Branch co-ordinated a ministerial mission to Japan to further strengthen Manitoba's position in this major market. The branch also hosted and provided technical support to several incoming trade missions from Japan, Thailand and the Philippines.

In response to concern over the increased use of chilled pork in the Japanese market, the branch initiated the shipment and testing of a sample of chilled pork. Testing was undertaken at the University of Manitoba and the Canadian Food Products Development Centre. Increased pork exports would likely be realized if "chilled" pork could be shipped from our province at prices competitive with Taiwan.

The Marketing Branch continued to work closely with the Manitoba Hog Producers Marketing Board to develop and expand export sales. The Board also participated in many shopping mall and exhibition promotions initiated by the Marketing Branch.

Sheep

The Manitoba sheep industry continues to play an important part in the province's rural economy as an alternate income source on many farm operations. Provincial producer organizations continue to be active in assisting Manitoba Agriculture in identifying areas within the sheep industry requiring attention. Work continues on the development of an industry profile and a strategy for sheep industry development.

Genetic Improvement

With the transfer of the data function of the Federal/ Provincial ROP program to the Manitoba Livestock Performance Testing Board, there has been an increase in producer enrolment and integration of performance testing into the extension program.

Extension

The emphasis in sheep production continues to be intensification. Extension topics at field days, demonstrations and at the annual Manitoba Sheep Seminar reflected this interest. Breeding programs, technological advances in reproduction, flock health, feeding replacement ewe-lambs and handling facilities were all covered. Staff emphasized the economic advantage obtained by following recommended practices.

The main extension events were supported by the annual fall producer tour, numerous phone calls and publication of the industry newsletter "Sheep Sense", complete with market report.

Support was also provided for the predator taste-aversion program, which discourages predation by the use of lithium chloride baits. The branch provided lithium chloride and assistance at bait-making time. Staff also provided advice and help for the Manlamb Producers Co-op Ltd. and the Manitoba Sheep Association Inc.

Marketing – Lamb

The marketing of lamb continues to be a major industry concern. No major processor exists in the province and lamb marketing and promotion within the province is minimal. Many lambs continue to be shipped live to markets outside Manitoba and a large proportion of sales are "farm gate" sales. The importance of a stable market is recognized by the department and it provides assistance and advice in market development and promotion.

Marketing – Breeding Stock

The Manitoba Sheep Association Inc. Summer Sheep Sale in Dauphin has become the major breeding stock sale in Manitoba. The department provided promotion, sale management assistance and expertise in stock selection for this sale.

Assistance and consultation on export opportunities is provided on a request-for-service basis. The past year has seen exports, particularly of Romanovs, to the United States.

Poultry

Extension

Extension activities included the distribution of an ROP book for broiler breeders and instructions on its use. Records from 30 producer flocks were processed and summarized.

Breeding

A hatchery monitoring project assessing the effectiveness of the sanitary procedures of hatcheries and their supply flocks was continued. In addition, a self-monitoring program involving Manitoba Agriculture and Agriculture Canada was used by four hatcheries.

Recommendations on 275 poultry feed samples were prepared and sent out. A study involving the interrelationship of rations and fat deposition in broilers was initiated.

Regulatory

Application of the regulations under The Livestock and Livestock Products Act involved pullorum-typhoid testing of all hatchery supply flocks and the inspection of premises.

Turkeys were also tested by blood samples for Salmonella typhimurium, and Mycoplasma gallisepticum, synoviae and meleagridis. In addition, samples of blood were taken from all chicken breeder flocks and tested for Mycoplasma gallisepticum, Mycoplasma synoviae and Infectious Bursal Disease. All turkey breeder flocks were tested periodically to maintain a Mycoplasma meleagridis-free status. Based on testing information, applications for U.S. import permits were completed for two turkey hatcheries and two egg layer hatcheries.

Disease Control

The Manitoba Poultry Health Committee met once in 1988/89. There was one ILT outbreak in a 1,000-bird fancy flock. Preliminary ILT regulations were drafted. The Egg Board set up a temporary reserve fund for ILT compensation to its members.

Marketing – Poultry Products

Manitoba poultry products were a featured commodity in the Marketing Branch's display at Foodex '89 in Tokyo, Japan. Particular emphasis was placed on deboned turkey, the major poultry product exported to Japan by one Manitoba processor.

The branch provided promotional assistance in an attempt to expand sales of poultry products into the Japanese market. Five incoming foreign trade missions were also hosted.

The poultry marketing boards participated in many of the shopping center and fair displays initiated and coordinated by the branch.

Thoughout the year, samples of turkey, goose and pheasants were shipped to prospective customers in foreign countries.

Feed Testing Laboratory

The laboratory analyzes feed samples submitted by livestock producers, feed companies, department staff and others. Chemical analyses are forwarded to nutritionists for interpretation and comment.

For 1988/89, the laboratory performed 51,357 analyses on 8,188 samples. These were composed of 1,594 research samples, 2,213 Manitoba Crop Insurance Corporation samples and 4,381 regular samples. Of the regular samples, 467 were grain, 2,788 were forage, 838 were complete feeds and 288 were unclassified. The introduction of a NIR analyzer made possible the handling of this large number of samples.

Animal Nutritional Services

These services ensure that producers and owners of all species of animals have access to the most up-to-date technical information on nutrition and nutritional practices. Detailed and readily understandable feeding recommendations are provided in response to results of feed analysis.

For the year, 1,552 written reports were issued in response to 3,300 individual feed samples submitted. Samples were submitted by individual producers, agri-business and local veterinarians. In addition, nutritional counselling was provided to producers and agri-business.

Nutritional expertise was provided to the Veterinary Services Branch and local veterinarians, on nutritional implications of disease investigations, preventive management and humane treatment of animals.

Investigations into lysine content of Manitoba barley, water quality in the Steinbach area and trace mineral levels in the Gladstone area were carried out.

The severe drought created the potential for severe feeding problems. In response to this, the branch prepared and released information to the public, and took part in 40 producer meetings.

Engineering Services – Livestock

Technical assistance was provided to livestock producers in many facets of engineering. Departmental engineers advised producers on planning, development and remodelling of livestock operations, farmstead and building layouts, structural design and construction, equipment design and selection, ventilation system design and installation, facility operation and management, problem solving and trouble shooting.

Design and troubleshooting of ventilation systems for producers involved over half of the client contacts in most regions.

Acquisition of the AUTOCAD drafting system has permitted staff to improve the quality and preparation time of designs and plans.

Veterinary Services

The Veterinary Services Branch develops and administers the programs and activities necessary to assure rural and urban Manitobans ready access to competent veterinary services. All of its activities are directed to assure the Manitoba livestock industry of adequate veterinary resources.

Western College of Veterinary Medicine

Manitoba again shared in the operating cost and the student quota of the Western College. The competition for the 72 students remained high. Manitoba's quota of 12 students provides a source of veterinarians for Manitoba.

Veterinary Science Scholarship Fund Act

This fund was established in 1947 to financially assist and encourage Manitoba students to study veterinary medicine and on graduation to return to rural Manitoba farm animal practice. Up to $750 per year may be loaned for each of the four out of province university years required.

The scholarship loan is repayable in cash or may be written off at the rate of one-fifth the total loan per each full 12 months of bona fide rural practice.

Currently, about 25 students out of a total Manitoba enrolment of 48 are assisted on an ongoing basis from this fund. Of the more than 250 students assisted since 1947, about half have returned to rural practice for one or more years. The returnees have contributed over 900 years of farm service to the province at a net cost of about $150,000.

Veterinary Student Summer Employment

Manitoba students must go out of province for the latter four of their six-year university course. This separation tends to break their home ties with Manitoba unless they are brought back for their summer recess each year.

The veterinary student summer employment program is proving to be an effective method to recruit graduates back to rural practice. It is an attempt to maintain students' home preferences, intersperse each of their academic years with three months of practical training appropriate for their academic level, and impress upon them the satisfactions to be gained from rural Manitoba service.

This activity depends heavily on the cooperation and financial participation of rural veterinary practitioners. They agree to spend the time and effort to train the students, and as the students become proficient, to pay part of their salaries. A favourable working experience and the development of compatible working relationships has resulted in a 50% success rate in recruitment.

In 1988, 23 students were employed under the program.

Veterinary Services Act

This Act provides for a group of municipalities to form a Veterinary Services District to maintain and operate a district animal hospital. Costs are shared equally between the municipalities and the province. In 1988, these costs totalled $829,000. In return for hospital privileges veterinarians charge less than a normal tariff for their services and for drugs. This program brings the direct farmer costs down, and encourages farmers to use the service.

Thirty-one districts have been established and 30 hospitals built. A total of 58 veterinarians serve under the program. More than 80,000 on-farm and in-hospital paid services and more than 90,000 non-paid veterinary extension advisory services were delivered in 1988/89. These involve more than 600,000 animals with an estimated valued of more than $300 million. The potential saving in livestock productivity is about $50 million a year.

A total of 116 rural municipalities and towns participate in this program. These serve over 80% of Manitoba's agriculture community.

Veterinary Drug Distribution Centre

The Veterinary Drug Distribution Centre was set up in 1974 to provide veterinarians with the volume buying power that allows them to compete in the marketplace and maintain regular contact with farmer clients.

The Centre makes veterinary drugs available to veterinarians at reasonable cost and has become a major factor in stabilizing rural veterinary services. As a result of the Veterinary Drug Distribution Centre, farmers have benefitted directly from reduced drug costs, fewer losses due to drug misuse, less need to supplement veterinary income and greater utilization of veterinary services.

Manitoba Semen Distribution Centre

The Manitoba Semen Distribution Centre makes available high-quality semen from genetically proven bulls without producers having to incur the costs of owning, proving and keeping them.

Artificial insemination with good management offers the potential of improving livestock productivity by as much as 10% per generation. In 1988 the centre distributed 50,000 ampoules of genetically proven dairy semen and 9,000 ampoules of beef semen.

Humane Treatment of Animals

To ensure adequate correction of inhumane treatment of animals, private veterinarians throughout the province can be appointed and paid for humane inspection duties under The Animal Diseases Act. Complaints about inhumane treatment of animals are investigated by an appointed veterinarian. It is the veterinary inspector's responsibility to ensure proper care and treatment of the animals.

In 1988, 85 humane inspections were carried out. Thirteen of the complaints proved not justified, 68 required corrective measures by the veterinary inspector and four resulted in prosecutions.

The system enables Manitoba to respond promptly to concerns or complaints by the public. Prompt response, investigation and correction of all complaints received ensures humane treatment of animals.

Field Services

Field activities dealt primarily with overseeing the expenditure of grant monies in the 31 Veterinary Service Districts, conducting field investigations of difficult and obscure cases presented to the laboratory, coordinating the humane inspections carried out in rural Manitoba, consultations with staff from the Drug and Semen Centres, and extending veterinary information to farmers. Staff have worked closely with practising veterinarians, local district boards, laboratory staff, agricultural representatives and livestock specialists.

Veterinary Laboratory Services

The Veterinary Laboratory is the only full scale diagnostic laboratory serving the Manitoba livestock industry. It is a reference centre for veterinarians, livestock owners and others who need advice on animal health and welfare. It provides prompt and thorough identification of pathogens from outbreaks of disease in herds and flocks. Veterinary practitioners use information provided by the laboratory to treat affected herds and prevent further losses. This type of laboratory service is essential to maintain a healthy livestock population, whether for domestic consumption or for export.

The laboratory is involved in at least 10% of practitioner cases and can be credited with a 10% saving in livestock productivity. On this basis a cost-benefit of 7 to 1 is realized on the laboratory's expenditures.

For service purposes, the laboratory is divided into three sections, each under an appropriate specialist:

The *Mammalian Pathology and Avian Medicine Section* is the receiving area for carcasses and tissues from herds or flocks suffering disease outbreaks or production losses. Initial examinations take place here, and specimens are examined. The cause of a disease outbreak or production loss may be identified at this point, or specimens may be sent to the other laboratory sections for further tests.

The *Infectious Disease Section* deals with the isolation and identification of a variety of viral, bacterial, fungal and parasitic pathogens. This section also communicates with public health authorities in certain cases, and with federal laboratories in cases beyond our internal capability. This section conducted thousands of procedures on serum samples from birds to be exported to the U.S. A separate laboratory is devoted to the detection of the most economically important indigenous viral pathogens. ELISA equipment donated by the poultry industry is currently well-utilized for disease diagnosis and evaluating the effectiveness of poultry vaccination programs.

The *Clinical Pathology and Toxicology Section* is an ancillary laboratory that deals mainly in the determination of blood chemistry and cell abnormalities. The data is most often requested for sick animals under treatment, but where the diagnosis is still obscure. In most cases same-day processing and reporting are required.

Micronutrient profiling has become a major service component of the section, providing livestock producers with background data for nutritional and other production management disorders.

In 1988 the laboratory handled 14,779 accessions and carried out a total of 255,794 test.

Veterinary Infectious Disease Organization (VIDO)

The Veterinary Infectious Disease Organization was established to research and provide means of controlling the common infectious diseases affecting Canadian livestock. It was located adjacent to the Western College of Veterinary Medicine in Saskatoon to easily access their expertise.

VIDO have so far concentrated their research on calf and piglet scours and pneumonia. Progress has been made in preventing calf scours in particular. Manitoba farmers have benefitted greatly.

Manitoba Agriculture provided a grant of $15,500 to VIDO in 1988.

Bees and Honey

According to the branch's annual package bee and wintering survey, 88,257 bee colonies were operating in Manitoba in 1988. Of these, 2,434 originated from imported packages, 81,340 from wintered colonies and 4,483 from nuclear colonies produced from wintered stock.

Staff extension activities continued to focus on four general areas: newsletters, meetings, personal visits and support of the four regional beekeeper associations. Agriculture staff maintained close contact with the University of Manitoba Department of Entomology. Co-operative efforts included the annual night school course and regional beekeeper meetings. The branch helped the Red River Apiarists Association organize the Manitoba National Honey Show and honey promotional displays at several regional farms. Staff also supported the efforts of The Manitoba Honey Producers Co-operative.

The beekeeping industry was supported at the national level through participation in the Canadian Association of Professional Apiculturists (CAPA) and the Canadian Honey Council. The Provincial Apiarist continued to hold the position of CAPA president and was one of the Canadian representatives to the annual Tri-Country Symposium on Africanized Bees and Parasitic Mites held in Mexico.

The Manitoba Crop Insurance Corporation continued to offer crop insurance for honey. Twenty-five beekeepers insured production for 14,901 honey bee colonies. Premiums totalled $38,146 and payout approximately $26,003.

Apiary Inspection

Of the 4,345 colonies inspected by the branch in the summer of 1988, 10 (0.2%) were found to be infected with American Foulbrood Disease (AFB). While none were infected with European Foulbrood Disease (EFB). Five (2.7%) of the beekeepers whose operations were inspected had equipment with AFB present. In the previous year, AFB was found in 62 (0.5%) of the 11,166 colonies inspected and EFB was detected in nine (0.1%).

Bee Mite Surveys

Varoa sampling was conducted as part of a national survey cost-shared with Agriculture Canada. None of the 1,503 colonies inspected appeared to be infested.

A total of 1,335 100-bee samples were collected and analyzed for acarine mites. Of these, 22 samples

(1.7%) from two beekeepers tested positive. All bees associated with these infested colonies were killed. Similar monitoring programs will be conducted in 1989.

Research

Most research efforts focussed on refining parasitic mite detection methods and monitoring honey bee colonies for the presence of mites. Some observations were made on the wintering ability of different honey bee stocks.

Bear Damage to Bee Hives

In 1988/89, a total of $1,000 was paid to six beekeepers under the Bear Fence Grant Program administered by the Department of Natural Resources. Under the program, beekeepers are eligible for a $100 grant for each electric fence erected around an apiary, up to a maximum of 10 fences per year.

The Department of Natural Resources also compensates beekeepers for equipment losses caused by bears. Eighteen beekeepers received a total of $8,522 under this program.

Alfalfa Leafcutter Bees

The leafcutter bee and alfalfa industries were supported through extension activities such as newsletters and personal visits. The extension apiarist served as a technical advisor to the Manitoba Alfalfa Seed Growers Association, and as the Manitoba representative on the technical advisory committee for the Canadian Leafcutter Bee cocoon Testing Centre in Brooks, Alberta. He was also active in the Canadian Alfalfa Seed Council.

Ninety-seven cocoon samples were submitted to the Canadian Alfalfa Leafcutter Bee Cocoon Testing Centre for qualitative analysis. None tested positive for Chalkbrood disease.

A mobile mechanized unit developed by the Manitoba Alfalfa Seed Producers Association was made available to leafcutter beekeepers to disinfect nesting material. The machine was used by 20 beekeepers, including many in the Interlake where Chalkbrood disease remains isolated at low levels.

Marketing – Honey

The Marketing Branch helped a Japanese trading company with packaging and promotional materials in support of their purchases of Manitoba honey. Staff also supplied interested producers with information on off-shore marketing possibilities.

Training and Development

Farm Management

The goal of the Farm Management Section is to improve the efficiency and growth of Manitoba farms by providing farm management services, resources and training, and by extending information, worksheets and training aids to farmers and staff.

In 1988/89, the emphasis was on resource development – that is, computer technology, training aids, audio-visual and program development, as well as group training. The section also provided farm business management support to other branches and divisions within the department.

In regions hard-hit by the drought, especially the Central and Southwest Regions, farm management staff spent a lot of time counselling farmers in financial difficulty. Activities included preparing financial statements, analyzing farm records, completing income projects, preparing credit proposals and working as field personnel for the Manitoba Mediation Board.

Staff training enhanced the branch's ability to provide in-depth counselling and education programs. Major areas of skill upgrading included computer technology, management, futures markets, international trade, income tax and general farm management techniques.

There were 86 individual contacts and meetings with the Department of Agricultural Economics, University of Manitoba, and 116 individual contacts and group meetings with banks, credit unions, caisses populaires and government financial agencies.

Staff developed and produced numerous fact sheets, pamphlets and audio-visuals throughout the year. In addition, 188 in-depth and 316 casual staff consultations were carried out on a range of topics, including cost of production, finance, credit, income tax, security instruments, marketing, computer and computer use, case recording, planning, team work and general administration. Staff also took part in 12 meetings on these topics; 452 farmers and farm couples attended.

4-H and Youth

The objective of the Manitoba 4-H program is to promote skill and leadership development of rural and northern youth and adults through a rural community-based organization.

During 1988/89, the Manitoba 4-H program involved 5,168 youth in 282 clubs, supported by 2,167 adult volunteers.

4-H is a national organization made up of grassroots-level clubs. In Manitoba, there are 39 district 4-H councils, five regional councils and one provincial 4-H council. All are supported by Manitoba Agriculture staff, including program assistants, home economists, agriculture representatives, regional 4-H specialists and the provincial 4-H office. The department is represented on the Canadian 4-H Council and provides a $6,000 grant to the organization.

Provincial Activities

The provincial 4-H office is responsible for coordination of all provincial, national and international activities. It provides support to district and regional staff, and supervises the northern 4-H program.

The Manitoba 4-H Council, with regional representation, coordinated activities on programs, public relations, the organization's 75th anniversary, sponsorship, travel and annual conferences.

Among the 4-H events offered to members were horse shows, dairy shows, 4-H livestock judging, sugar beet achievement, public speaking contests, demonstrations and competitions.

Regional 4-H Activities

All five regions carried out an extensive program at the club, district and regional levels. Activities ranged from camps, rallies, member training, leader training, travel programs and the basic project work.

In August, a commemorative stamp was unveiled in the town of Roland, the community where 4-H began in Manitoba, in recognition of the 75th anniversary of the 4-H movement in the province. A former bank building was purchased there to provide a home for a 4-H museum. Celebrations were also held in communities throughout the province.

4-H Projects

The department supplied more than 101,000 copies of project manuals, record books and resource material to a project enrolment of 5,996. The subjects covered by these materials included beef, outdoor living, knitting, fashion projects and communications. Work continued on a computer enrolment program.

Staff Training

Staff attended regional training sessions in time management, legal liabilities, grieving and child abuse. The Winnipeg office assisted with three of these events, as well as three regional steno training days.

Northern 4-H Program

In 1988/89, 166 members and 63 leaders participated in 4-H clubs in the communities of Thompson, Carrot Valley, Sundance-Bird, Grand Rapids, The Pas, Gillam and Flin Flon. In addition to local project meetings, members participated in several regional and provincial activities.

Home Economics

Home economics programs are delivered by Manitoba Agriculture field home economists in rural Manitoba. The field work is supported by specialists in the Home Economics Section in Winnipeg. Manitoba Agriculture home economists work closely with their counterparts in Manitoba Health, especially in northern regions and in Winnipeg and Brandon.

The objective of the home economics program is to help Manitoba families, especially young families, to apply knowledge and skills to improve family lifestyle and well-being through optimum use of physical and human resources. The three major areas of programming in support of this objective are family financial management, family living and well-being and family resource management. Information on nutrition was also in demand.

Several staff members made presentations to two Brazilian home economists in Canada on an exchange program.

Home economists provided numerous individual counselling services and group sessions throughout the province to help Manitobans deal with a variety of financial, emotional and family lifestyle issues.

Family Financial Management

Regional home economists worked with agricultural representatives throughout the province to provide counselling for financially troubled farmers. Some financial counselling was carried out with rural families, often on referral from the Bankruptcy Office, but frequently in consultation with farm management staff working with families. Self-help groups have been established in some areas.

Home economists were involved in coordinating "Farm Planning '89: A Family Affair," the department's 1989 home study course. This project was put together with the help of agricultural representatives, farm management specialists, the family living specialist, training and program coordinator, communications specialists and a variety of resource people in the financial field outside of the department. It involved meeting with the planning committee and ensuring that deadlines were met, funding was available and lessons ready for mailing in February and March 1989, as well as providing some planning and proofing support.

A Family Finance Training Program was carried out in Winnipeg, Brandon and Dauphin, for fee-for-service and volunteer home economists.

The Home Economics Section developed printed materials on a variety of financial planning issues and contributed to the development of several others.

Family Living and Well-Being

The Home Economics Section provided support for the annual Manitoba Farm Women's Conference. One home economist was on the conference steering committee. In addition to planning for the 1989 conference, the steering committee evaluated the conference and held preliminary meetings on the 1990 conference.

The section handled numerous requests for counselling on basic living skills, both in Winnipeg and in rural Manitoba. The section is investigating ways to have resources created and printed for people in need of advice. Volunteers and practicum students have extended the services for special needs clientele in Winnipeg. Projects have been undertaken with the deaf, natives, immigrants, single parents and the mentally handicapped.

Clothing

Information and training in buymanship for wise clothing purchases, care and maintenance of garments, decreasing clothing expenditures and updating on new sewing materials and techniques were provided to individuals and groups.

Housing

Resource materials have been developed in several areas. One was a publication on the cost of child rearing. These figures are of concern in family budgeting and as guidelines in establishing child support payments. This publication, called "The Cost of Raising a Child," is based on Budget Guides figures and will be updated annually.

Another publication – "A Home Based Business: More than a Dream" – reflects growing interest in self-employed ventures as a viable income generating alternative.

There is public concern over the incidence of radon gas, a known cause of lung cancer, in Manitoba homes. Home economists throughout the province responded to queries about this subject.

Community Development

Home economists supported various farm women's groups by helping with program planning, identifying resource people for presentations and making numerous presentations themselves. To provide the best possible counselling to clients, home economists emphasized learning about programs of other agencies, and networking with people involved in programs outside the department.

Media

Home economists made regular and effective use of the media to get their messages across to a wide audience throughout the province. They produced regular columns in community weekly newspapers, radio items and television programs. Staff also provided production assistance on several videotapes during the year.

Agricultural Extension Centre

The Agricultural Extension Centre in Brandon provides a wide variety of services, both on a regional basis to Southwestern Manitoba and to the province. The centre delivers short courses to interested participants and provides office space for Southwest regional staff and specialists in dairy, conservation and the Manitoba Beef Commission.

During the past year 19 courses were held at the centre. More than 1,400 men and women attended, for an average of 74 per course. The centre is also a popular meeting place, and during the fiscal year, 689 meetings at the centre were attended by 21,736 people (including the 2,800 who were at Ag Days).

The centre can house 92 people in residence and can host up to 200 in its dining room. The residence accommodated 3,475 persons, while the cafeteria served 17,087 meals. The four main classrooms can accommodate 450 people at one time. Last year there were 88 sessions and seminars lasting two days or more; 3,384 persons attended them.

Total attendance at Agricultural Extension Centre courses stood at 1,407. This represents a decline from the 1,631 who attended courses the previous year, but the annual Outlook Conference was held outside the centre this year, and this alone accounted for about 500 people.

Resource people and instructors are drawn from Manitoba Agriculture, Agriculture Canada, the University of Manitoba, private industry and the farm sector. Almost 23% of the 109 resource people hired to speak at the courses were farmers.

The Ag Action mailing list, on computer, has made mailings of this four-issue course outline more accurate, allowing the centre to respond quickly to address changes. The local media, including two radio stations, one television station and the Brandon Sun, provide coverage and dissemination of information that would not be available any other way.

Rural and Human Development

Staff in this section fulfilled a variety of functions, ranging from research and consultation to direct client support and coordinating programs.

Staff participated on a Rural Development Committee examining current issues related to community and rural development that the department might become involved in.

Direct client support included some career counselling, acting as chair for an orientation seminar for trainees in Manitoba under the International Agricultural Exchange Association, helping to develop a consulting contract between the MBA Student Consulting Program of the University of Manitoba and the Manitoba Host Family Association of the IAEA, and functioning as chairperson/coordinator for the five pilot projects related to the development of a Farm Family Resource Network directory.

Staff served on a committee set up to develop a new Farm Management Initiative, and acted as secretary to the Canada Manitoba Agricultural Employment Committee co-chaired by federal and provincial governments.

Agricultural Employment

Canada and Manitoba, represented by the departments of Employment and Immigration Canada and Manitoba Agriculture, work together under an agreement called the Canada-Manitoba Agricultural Employment Agreement. This agreement establishes a committee known as the Canada-Manitoba Agricultural Employment Committee which is given an overall responsibility to:

- assess agricultural employment and training needs and recommend suitable strategies to meet needs.
- make recommendations on the establishment of Local Agricultural Employment Boards and establish required operating strategies and policies. Through these boards, the committee will evaluate the activities carried out by the Agricultural Employment Services offices.
- establish and publish wage, working and living condition guidelines for agricultural workers that are to be applied to placements made through the Agricultural Employment Services offices.
- the committee also makes recommendations on research projects related to farm labour; provides advice and representation to the Canada-Manitoba Labour Market Needs Committee; and provides advice, as appropriate, on the Canadian Rural Transition Program.

Agricultural Training

Assiniboine Community College again offered agricultural training throughout rural Manitoba in 1988/89, responding to producer requests through the

local agricultural offices and the Agricultural Employment Services offices.

The college provided courses in 127 different subjects. A total of 1,691 students enrolled for a total of 12,285 training days.

Offshore Workers

In 1988, 44 Mexican farm workers were employed on four vegetable farms in the Portage, La Salle and Marquette areas. The vegetable growers and the Manitoba Farm Workers Association agree on a joint recommendation to government as to how many offshore workers should come into Manitoba.

Portage Project – Continuing Programs

The Portage Friendship Centre provides support services such as child care assistance, money management training, temporary accommodations and housing assistance. The centre also takes an intermediary role in employer-employee discussions. These services are available to all farm workers in the Portage Area.

In 1988/89 a small, daily transportation service brought workers to work on vegetable farms in the Portage area. The service was funded through Employment and Immigration Canada. The Portage and Headingley Correctional Institutions provided people for short term field or warehouse work on an ad-hoc basis.

Agricultural Exchange Program

The International Agricultural Exchange Association (IAEA) had 39 trainees on Manitoba farms in 1988. Shortly after their April arrival in Canada, they attended a five-day orientation seminar to become familiar with Canadian agricultural practices, customs and laws. The trainees then proceeded to their host family farms to live as family members and work as employees/trainees. In mid-summer, they took a three to four week vacation to travel throughout North America.

In 1988, 29 Manitobans left on IAEA exchanges to Europe, Australia and New Zealand.

Agricultural Societies

In 1988, 63 Agricultural Societies hosted fairs and exhibitions in the rural communities. Competitions in home living skills, the arts, livestock, horticulture and school work were the highlights. Often, 4-H Achievement Days and rallies are held in conjunction with the fairs.

Several societies also sponsor educational events over the winter months. Community problems and concerns are identified and the Agricultural Societies work with departmental staff to arrange programs aimed at helping with these topics. Often several community organizations work together to sponsor educational seminars.

In 1988, the department awarded the following grants to provincial agricultural societies: buildings and improvements $106,500; prize money $237,000; judges $33,100; 4-H activities $12,100; and memberships $6,900.

Since its inception in 1986, the Manitoba Association of Agricultural Societies has been actively involved in providing leadership to these groups. Three board meetings and an annual conference are arranged each year by the association's 12 elected directors. The office of the Superintendent for Agricultural Societies helps with these meetings. The Canadian Association of Exhibitions annual conference will take place in Brandon in February 1990, and is being hosted by the Provincial Exhibition in Manitoba.

Manitoba Agricultural Hall of Fame

The Manitoba Agricultural Hall of Fame formally recognizes individuals who have made outstanding contributions to the betterment of agriculture and rural living in Manitoba. The department assists in its financing with an annual grant of $12,400, paid on a matching two-for-one formula. The Hall of Fame is located in the Agricultural Extension Centre in Brandon. The two new inductees for 1988 were Marion Fulton of Birtle and the late Dr. F. Andrew Hodge of Hamiota.

Keystone Centre – Brandon

Built in 1973, the Keystone Agricultural and Recreation Centre serves the agricultural, recreational and entertainment needs of Brandon and surrounding districts. Under the Keystone Agreement, the Province of Manitoba and the City of Brandon share equally in annual operating deficits to a maximum of $50,000 each. In 1988 the province contributed the maximum of $50,000 and provided Keystone with a $25,000 capital grant.

Manitoba Women's Institute

In 1988 the Manitoba Women's Institute had 1,400 active members in 87 local chapters throughout the province. The W.I. provides valuable family and community support to members and non-members through its educational and social programs. It works closely with the Home Economics Section of Manitoba Agriculture. Manitoba Agriculture granted the W.I. $32,900 in 1988.

Manitoba Farm Vacations Association

Organized in 1971, this association has 54 active host families offering prospective vacationers an opportunity to enjoy rural hospitality first-hand. Host farmers offer a wide selection of farm experiences ranging from large cattle ranches or dairy operations to grain and mixed farms of all sizes. Participating families supplement their farm income in a modest way and enjoy the social aspects of this activity. During 1988, these families hosted over 9,000 overnight guests. School tours numbered 378 with over 23,000 students visiting host farms. During 1988 the association received a provincial grant of $23,700.

Century Family Farm Program

In 1981, the Century Family Farm program was established. Any family operating and residing on a farm that has been operated continuously by the same family for 100 years or more can apply for and, with documentary proof, receive a gate sign and certificate recognizing this accomplishment. To date, 612 families have been acknowledged through this program. In 1988, 40 presentations were made to Century Family Farms.

Crops Management and Marketing

Field Crops

The Crops Strategy was reviewed by the Crops Strategy Team and a new evaluation section was developed. Major emphasis was placed on development of economic thresholds for weed, insect and disease control. The recommendations developed would provide farmers with information on economic considerations in pest control.

Major emphasis was also placed on development of new and expanded markets and food products. Other efforts given special attention included familiarizing producers with the benefits and risks of crop marketing options, and increased information on markets and market trends.

Corn and Sunflower Testing

Each year the Manitoba Corn Committee and the Manitoba Sunflower Committee coordinate testing of corn and sunflowers in the province. In 1988, corn trials were conducted at three locations in cooperation with two Agriculture Canada Research Stations and the University of Manitoba. The combined 1987 and 1988 performance data were used to register support of two grain corn hybrids, 10 oilseed sunflower hybrids and one non-oilseed sunflower hybrid.

New Crop Investigation and Development

The search continues for new crops that could be grown commercially in Manitoba. High temperatures and low precipitation resulted in the failure of many plots to reach maturity. These conditions also revealed that lupins and safflower are not as drought tolerant as had been thought. Evening primrose, caraway and quinoa were the main new crops investigated.

Seed Production

A total of 1,357 Manitoba seed growers devoted 318,333 acres (128,880 ha) to seed production in 1988, an increase of 1,567 acres (634 ha) from 1987.

Table 1

Major Crop Kinds Planted for Seed Production — 1988

	Hectares	Acres
Wheat	54,928	135,671
Oats	3,064	7,568
Barley	15,483	38,243
Flax	9,481	23,417
Canola	3,242	8,010
Other	42,682	105,424
Total	**128,880**	**318,333**

Variety Evaluation – Agri-Food

This year's variety evaluation project determined the performance of 19 field crop species, including 114 varieties of cereal, oilseed and special crops, a large number of forage entries, cultivars of eight vegetables and numerous lines of potatoes. Trial locations were carried out in all five regions of the province.

The performance data generated in this project is broadly used in making annual variety recommendations.

Pulse Crop Demonstrations – Agri-Food

The semi-leafless field pea variety, Tipu, was demonstrated at four locations. One of these was in mixture with yellow mustard; it produced high quality peas. Peas mixed with canola and mustard were tested again at the University of Manitoba (Portage station) with excellent results.

Publications

Crops Section staff developed variety recommendations and assembled the variety performance data for publication in the bulletin "1989 Crop Variety Recommendations for Manitoba." About 23,000 copies of this bulletin were distributed.

Revisions in crop production recommendations were published as part of the bulletin "1989 Field Crop Variety Recommendations for Manitoba." These will be inserted into the Field Crop Production Guide for Manitoba when printed for 1991-93.

Two other publications relating to specific Manitoba-produced crops were updated and reprinted. A fact sheet dealing with soil management in pulse crop production was developed in conjunction with the Soil and Water Section.

Extension and Promotion

Crops Section staff actively promote the adoption of new varieties. The following table lists examples of the adoption of new varieties, showing the initial year of recommendation and the percentage of plantings it held in 1988. (See table)

Crops Section staff also encourage farmers to use pedigreed seed. The Manitoba Crop Insurance Corporation reports that during the eight-year period 1980-88, the use of pedigreed seeds increased in Manitoba by 2.0% for wheat, 2.5% for barley, 2.3% for canola and 2.8% for flax.

Crops Section staff present crop production information at regional extension meetings. During 1988/89, staff made presentations at 35 meetings. Topics of major interest included the problem of green seed in canola and growing field peas with canola or mustard. (See table 2)

Table 2
Summary — Cereal, Oilseed and Major Special Crops — 1988

Crop	Hectares	Yield per Hectare	Price	Value of Production
Wheat	1,950,100	1.23 t	$122.00/t	$292,021,000
Barley	607,000	1.84 t	86.00/t	89,546,000
Oats	223,000	1.38 t	113.00/t	25,312,000
Flax	283,000	0.70 t	274.00/t	54,254,000
Canola	627,000	0.98 t	300.00/t	183,624,000
Sunflowers	34,400	1.24 t	190.00/t	8,094,000
Field Peas	72,800	1.08 t	215.00/t	16,963,000
Mustard	8,100	0.84 t	221.00/t	1,812,000
Lentils	12,100	0.60 t	265.00/t	1,934,000
Canaryseed	10,100	0.76 t	176.00/t	1,355,000

Crop	Acres	Yield per Acre	Price	Value of Production
Wheat	4,820,000	18.3 bu	$3.31/bu	$292,021,000
Barley	1,500,000	32.0 bu	1.87/bu	89,546,000
Oats	550,000	26.4 bu	1.75/bu	25,312,000
Flax	700,000	11.1 bu	6.96/bu	54,254,000
Canola	1,550,000	17.4 bu	6.80/bu	183,624,000
Sunflowers	85,000	1106 lb	9¢/lb	8,094,000
Field Peas	180,000	16.1 bu	5.85/bu	16,963,000
Mustard	20,000	900 lb	10¢/lb	1,812,000
Lentils	30,000	533 lb	12¢/lb	1,934,000
Canaryseed	25,000	680 lb	8¢/lb	1,355,000

Marketing – Special Crops

The Marketing Branch responded to off-shore commercial firms interested in sourcing Manitoba agricultural commodities. Staff also maintained close contact with local industry, producer associations and growers to assist in export market development.

The branch hosted and co-ordinated an incoming mission from the Japan Buckwheat Millers Association. Mission members met with buckwheat growers, visited major buckwheat growing areas, toured the Morden Research Station and conducted taste trials at the University of Manitoba.

Staff also participated in a federal government sponsored, incoming trade mission made up of representatives from the Chinese government buying agency for wheat.

The branch worked closely with growers interested in developing export markets for pulse crops, canary seed and flax. Additional promotional seed kits were produced. Staff participated in the Market Development Committees of the Canola Council of Canada and the Flax Council of Canada.

Pulse crops and canola were included in the branch booth at Foodex '89 in Tokyo. The branch also helped the Manitoba Pulse Growers Association participate in local exhibitions and publish recipe pamphlets.

Work was initiated on an investigative mission to assess marketing opportunities for feed peas in the Pacific Rim. The mission was planned in co-operation with a private grain company and the governments of Saskatchewan and Alberta.

Branch staff worked with provincial wild rice growers to develop a marketing strategy and grading system. Export of wild rice was promoted at Foodex '89 in Tokyo and though product samples distributed to off-shore customers.

Forage and Pasture Management

During 1988, Manitoba experienced the worst drought conditions in 50 years. Livestock feed and water were in short supply throughout the province, especially in the Southwest and Central Regions and the southern halves of the Interlake, Eastern and Northwest Regions. Manitoba and Canada entered into two cost-shared agreements to assist livestock producers.

Under the Canada/Manitoba Livestock Drought Assistance Program, initiated to maintain the basic breeding herd of ruminant livestock, 8,678 producers received an estimated $15.5 million for 497,000 breeding animals. Under the Canada/Manitoba Greenfeed Program, designed to provide incentives for production of emergency livestock feed, 5,520

producers produced 385,000 tons of feed at a cost of $8.4 million. This was estimated to be the equivalent of one-third of total winter feed requirements for Manitoba livestock.

Ammoniation of low quality feeds such as slough hay and straw was used to supplement low feed supplies. Some producers used ammoniation for the first time.

Grassland Section

The Grassland Section coordinates and develops regional forage programs to meet the needs of livestock producers. To achieve this, staff have worked to establish grassland societies and carried out 14 regional pasture projects. An estimated 3,100 producers have been directly involved with projects in the past 14 years. Farmers work directly in the running of these projects, and they supply the cattle for the trials. Regional staff administer the projects and the department assists with the operating costs.

Marketing – Forages

The Marketing Branch helped local firms attempting to develop export markets for processed forage products. Particular emphasis was directed toward the Pacific Rim.

Branch staff also helped develop a Forage Strategy intended to address major problems facing this agricultural sector.

Forage Strategy

The Forage Strategy is a management plan developed in 1987 to enhance economic opportunities for farmers. It provides a background to the forage industry in the province, presents relevant objectives and outlines an implementation process which focuses on marketing, research needs, technology transfer and resource conservation.

As a result of the strategy, nine hay auctions have been conducted in the Interlake and Central Regions, and 5,000 tons of hay were sold. In 1988 the average price was $50 a ton. The sales were conducted as a joint venture between Manitoba Agriculture and either a producer group or local cattle auction mart.

Another result has been the formation of the Manitoba Forage Council. Composed mainly of producers, it is dedicated to improving the production and use of forages, and to forming a strong voice for forage-based agriculture in the province.

Tame Hay Production

The department continues to promote tame hay as a basic winter feed supply. The area planted to tame hay increased by 50,000 acres (20,000 hectares) in 1988. Due to the drought, total production actually declined 40% from the previous year to 1,724,000 tonnes. Production in 1988 was 70% lower than the average of the previous five years. Most of Manitoba's hay was consumed by Manitoba's ruminant livestock industry. Exports declined during 1988 as a result of the drought-induced production decline.

Agri-Food Forage Projects

There are 12 projects designed to improve the production, handling and use of forages through forage/livestock demonstrations. These include economical methods of on-farm storage, processing and feeding of forages, and recommended practices to improve the use and management of pastures. Over 150 demonstrations were conducted throughout the province.

Table 3
1988 Production and Farm Gate Prices

	Production		Price Per		Farm Value
	kilograms '000	pounds '000	kilograms $	pounds $	$
Alfalfa	3500	7716	2.09	.95	7,330,000
Birdsfoot Trefoil	600	1322	2.54	1.15	1,520,000
Bromegrass	50	110	1.21	.55	61,000
Crested Wheatgrass	45	99	1.32	.60	59,000
Kentucky Bluegrass	20	44	2.31	1.05	46,000
Meadow Fescue	45	99	.88	.40	40,000
Red Clover (Double Cut)	40	88	1.21	.55	48,000
Red Clover (Single Cut)	350	772	.62	.28	216,000
Sweet Clover	4000	8818	.26	.12	1,058,000
Timothy	2500	5511			3,417,000
Total	11,150,000	24,579,000			$13,795,000

Forage Seed Production

Total production of all forage seed, including foreign and private varieties, increased from 8,860,000 kg (19,515,000 pounds) in 1987 to 11,150,000 kg (24,579,000 pounds) in 1988. Total farm gate value decreased slightly from $14,093,000 to $13,795,000. Total area harvested increased by about 20% in 1988. In particular, alfalfa, birdsfoot trefoil and sweet clover increased significantly from 1987 to 1988, while timothy production was down as a result of the drought.

In view of increased production in Manitoba and Western Canada, the farm gate price softened for all forage seed crops. There were large price drops for bromegrass, birdsfoot trefoil, single cut red clover and sweet clover. In total, the farm gate value of all forage seed crop in 1988 was 98% of 1987's record high. (See table 3.)

Canadian Forage Seed Project

The Canadian Forage Seed Project is a joint project involving Agriculture Canada, the provincial department of agriculture, the universities, the Canadian Seed Trade Association and the Canadian Seed Growers' Association. It was established to multiply and distribute Foundation seed of the older Canadian public forage varieties. In previous years Agriculture Canada was responsible for multiplying project varieties and financing the operation. In 1988 this was turned over to various members of the Canadian Seed Trade Association. Half of the Foundation seed is allocated through the provincial agriculture departments and half through the seed trade.

Applications for forage seed were down sharply from previous years, as a result of the weakening forage seed market brought about by higher North American production. In 1988/89, 57 producers bought 4,915 kg (10,835 pounds) of Foundation seed through the project, down 18% from 1987/88.

Horticulture

New Product and Crop Development

Development work to expand the percentage of strawberries sold to outlets other than the U-Pick system resulted in higher volumes moving through the H, R, & I trade. Processed markets on a cottage scale level are beginning to enter the market. These include yogurts, jams, jellies and juices. Development work continues to focus on out-of-storage shelf life and sensory evaluation for strawberry, raspberry and apple cultivars. Increased interest in production of saskatoons, raspberries and apples is resulting in higher production levels.

Manitoba's greenhouse industry continues to expand at a slower rate than those of neighboring provinces. However, the per capita sales of greenhouse products in Manitoba and the immediate market area is rising. Intensive one-on-one educational efforts and increasing involvement with the producers' association is being continued to promote the industry.

The production efficiency of flowers for fresh and dried trade is being examined. Improved distribution of heat in forced-air heating systems through the use of poly tubes is under study, in cooperation with the Technical Services Branch.

Development work in the culture and storage of garlic is leading to the establishment of commercial production. In the past two years, cultivar screening trials have identified at least two lines with ability to produce satisfactory yields with either early spring or fall planting. Work continues to evaluate storability and identify suitable production and handling techniques.

Attempts for a commercial grower to produce forcing stock of witlof chickory were not successful during the drought of 1988. It is expected that production will be reactivated with the return of favorable growing conditions.

A study is underway of the production potential for vegetable and fruit products for processing at the Canadian Food Products Development Centre. Staff are involved as resource contacts on the steering committee.

In the north, a greenhouse/market garden training program was set up. A tour of lingonberry production and processing techniques in Saskatchewan provided a knowledge base for a detailed evaluation of wild berry processing in Manitoba.

Extension and Program Delivery

The Hort Line information service was continued with the employment of a student assistant, who handled 1,903 inquiries in Winnipeg. Another 900 were handled through the Western Region's sponsorship of staff at the University of Brandon. Additional support was provided in rural areas during the peak season with participation from four Agricultural Representative areas in Western Manitoba.

Non-summer period inquiries were serviced through mail-outs of printed information.

Professional staff continued to work closely with six commodity-based organizations and regional staff to help stage 31 field days, tours, seminars and conventions. This provided an effective process of technology transfer in all major commodity areas except mushroom production. The largest single event was the H.I.D. Convention which involved crop special-

ists, commodity organizations and the service industry. About 615 attended.

Work continues with 48 northern and remote communities to expand and introduce greater self-sufficiency of food production. Directly linked to this is the development of improved leadership skills and an improved appreciation of diet as it relates to human health. In recent years, semi-commercial activities have been developed in nine communities.

A close working relationship is maintained with the Frontier School Division in the continuation of confined and open gardening and food utilization activities. Support includes on-site visits, telephone inquiries, group education, northern gardening workshops and harvest achievements.

Investigation and Development

The forage plot at Wabowden was maintained. Evaluation of the potato cultivar Carlton has led to its wide acceptance by northern communities. Preliminary information on ornamentals for the Thompson area was completed, and with on-going observation, will provide a base for a recommended list of material for the north.

The small scale integrated pest management activity continued and showed promise for reduced pesticide applications. Subsequent to the approval of an Agri-Food-sponsored I.P.M. project on fruit and vegetable crops, an expanded program was developed and will be implemented in the spring of 1989. Studies to determine the source of infection on Spanish onions were hampered by drought and no results were obtained. A project to evaluate the uniformity and stand count was carried out.

Other projects included work with the regions in an optimum crop management program on 15 fields, evaluation of the effects of soil fumigation, plastic mulch and cultural management techniques on strawberries, and cultivar and pruning systems of raspberries.

Information Development and Update

The section participated in or developed publications on horticultural crops, vegetable, greenhouse, and strawberry production and pest control recommendations, variety lists and disease control publications.

Service Activities

The plant pathology laboratory analyzed 4,439 samples. Submission of samples was down 29% because of dry growing conditions. Surveys were conducted on canola for blackleg (increased incidence), cyst nematode in sugar beet soil (low level of infestation), molds in hay samples (several showed high levels of *Penicillium* species) and Vomitoxin content in wheat. Potato foliage samples from 78 fields showing the effects of early dying were analyzed.

Production of disease free potato stocks continued through the Agri-Food contract with the Seed Potato Growers Association of Manitoba. The production of 151 cwt of the first generation and 1,895 cwt of second generation stock was sufficient to meet industry needs.

The tree pruners course was reorganized with lectures being held one evening per week for a total lecture time of 24 hours. Instruction covered aspects of tree pruner, maintenance and worker safety. An additional one-day session covered material related to pesticide application. A closed book examination was also initiated. Staff issued 38 new tree pruner licences and renewed 189. Pesticide dealer applicators activity involved 453 clients, and 30 commercial nurseries were inspected.

Through the Horticultural Societies Act, $14,877 was paid to 35 societies in support of the annual shows and $1,238 in membership grants. Allocation and provision of judges' expenses for the flower shows and the Provincial Home Grounds competition was carried out. Six shows were cancelled because of the drought. Three judges' training schools were organized and scheduled for the coming year.

In 12 northern communities, 186 sites for gardens were tilled with tractor and rototiller. Fifteen hand guided tillers are provided to communities for soil preparation of previously tilled garden areas.

Interagency Liaison and Research Priorization

Staff were involved with numerous public and private agencies and institutions to ensure the coordinated development and efficiency of the industry. Examples include participation in a study to determine the potential of expanded production and processing of selected vegetable crops, bilateral and multilateral trade implications, grade regulations for fresh fruits and vegetables, pesticide registration through the minor use program, research and development priority identification and publication, contact with industry to further develop the potential for enzyme extraction, and detailed consultation to evaluate the potential of a large-scale closed environment production system for high value crops.

Marketing – Fruits and Vegetables

The Marketing Branch provided strawberry and raspberry growers with maps and informational brochures highlighting U-Pick locations.

Staff participated in the annual Canadian Fruit and Vegetable Wholesalers Association Convention and

Trade Show, the major national trade show for the produce industry. The branch was also active in the Fresh For Flavor Foundation, the promotional arm of the Canadian Horticultural Council.

The branch continued to work closely with the Manitoba Vegetable Producers Marketing Board and local industry to expand market share. Several publications were produced to promote Manitoba vegetables, both locally and nationally.

Engineering Services – Crops

Weed Control

The branch continued a sprayer nozzle testing program and provided results to staff, industry and farmers. Design assistance was provided to local sprayer manufacturers.

Staff answered numerous enquiries on sprayer selection and operation and held sprayer clinics throughout the province. Equipment displays organized for the 1989 Ag Days in Brandon and Winnipeg included an engineering booth, which provided information on sprayers, grain drying and field machinery.

More than 130 commercial pesticide applicators were trained and tested at three applicator courses in the spring of 1989.

Harvesting and Grain Drying

Staff designed seven individual grain storage systems for Manitoba farmers and completed a new CPS standard plan on grain storage. The branch also analyzed how airflow patterns are affected by peaked grain surfaces and partially perforated floors.

A microcomputer program providing design and management assistance for unheated air drying systems was modified to permit the use of weather data from other weather stations.

The branch held three combine clinics on short grain harvesting techniques and revised a publication on grain harvesting and drying.

Field Machinery

The 1990 Homestudy course will include a section on farm machinery economics, safety, selection and maintenance. Staff also prepared a new rental rate guide for farm machinery. Two air seeder demonstrations were held.

Horticulture

Through some 321 personal consultations, the branch provided engineering advice and information to producers, industry, researchers and other extension staff. Staff assisted with building plan selection, construction analysis and specifications, and specific engineering problems. Detailed design assistance was provided for 33 special crop structures, covering areas of structural design, heating, ventilation and humidification.

The branch continued a study to improve temperature uniformity in greenhouses. Further monitoring and analysis is required. Staff also continued to study damage to potatoes during harvesting and handling.

Six presentations were made at producer meetings on topics such as potato harvesting, potato storage, farm structures and edible bean harvesting.

Weed Control

Drought conditions resulted in a higher than normal number of requests from producers in many parts of the province having weed control problems. In the central region it was estimated that weed control efforts have been set back as much as 10 years or more with the increase in the weed seed reservoir.

Staff responded to more than 1,800 inquiries from farmers, chemical dealers and consumers. Staff also made presentations at more than 40 extension meetings attended by more than 2,000 farmers. Extension efforts focused on strategies for dealing with special weed problems, chemical safety and developing herbicide application records as a basis for weed management decisions. More than 20,000 copies of the Guide to Chemical Weed Control were distributed to farmers throughout the province.

Manitoba Ag Days

Two-day Agricultural Trade Shows at Brandon's Keystone Centre and the Winnipeg Convention Centre attracted about 5,200 people. About 119 exhibitors took part, providing information on the control of weeds and other equipment. The Manitoba-North Dakota Zero-Till Farmers Association annual meeting was held in conjunction with the Winnipeg Ag Days and the annual Outlook Conference was integrated into the Ag Days program at both locations.

Pesticide and Fertilizers Control Act

Staff responded to seven complaints relating to herbicide drift. Two of these concerned applications by farm operators while five were directed at licensed aerial applicators. Pesticide dealer and applicator training sessions emphasized the proper calibration of spray equipment, record keeping, herbicide selection and application methods.

Weed Control Districts

Thirty-three weed control boards were in place in 1988. Weed supervisors enforced the Noxious Weeds Act, supervised municipal weed control programs and assisted farmers and homeowners by

providing information. Weed supervisors made 3,760 farm visits, identified 2,493 weed samples, calibrated 244 sprayers and responded to more than 29,000 weed control inquiries. Supervisors also conducted more than 1,900 field and equipment inspections and served 388 weed control notices. Total weed district expenditures of $1,857,321.44 were supported by provincial weed district grants of $373,200.

Weed districts also provided an active pesticide container disposal service. About 200,000 containers were delivered to designated collection sites. Pesticide residues collected from the containers were disposed of by the Department of Environment and Workplace Safety and Health.

Biological Control

Progress toward biological control of leafy spurge continued as the root feeding flea beetle *Aphtona nigriscutus* successfully overwintered at several new locations in the province. At the original release site suppression of spurge is dramatic and the affected area continues to expand as the insect population increases. Populations were moved to several new locations to enhance the spread of this control agent. Biocontrol activities are conducted in cooperation with weed control districts, Agriculture Canada, North Dakota and Saskatchewan.

Soil and Water Management

Provincial Soil Testing Laboratory

During the 1988/89 fiscal year, the provincial soil testing laboratory processed 29,700 samples, about the same number as the previous year. Farm soil samples totalled 22,470, up 55%, and the largest volume increase in the past five years. Of the total, about 28,678 were soil samples and 975 were tissue samples. Total revenue for the year was $292,250, more than 70% more than the previous year. Just over $2,000 of this revenue was from the sale of soil probes, augers and soil thermometers.

Soil Fertility

Extension efforts focused mainly on informing farmers of the soil nutrient levels after the 1988 drought and other timely subject areas such as fertility of forage seed crops.

The 1989 drought resulted in a record build-up of nitrogen in the soil. The nitrogen levels in much of Southern Manitoba's fields were in the "very high" category. Because of this, farmers were strongly encouraged to soil test.

There were 16 demonstrations or investigation plots established throughout the province in continuing fertility studies on annual and perennial crops. These included both major and micronutrients. A University of Manitoba study was sponsored through Agri-Food funding to study the time needed between applying anhydrous ammonia and seeding the crop. Also, an investigation was initiated to see what change may occur in nitrogen levels with different dates of soil sampling in the fall. This type of information may be of value to farmers who want to do their sampling early in the fall before the soils have cooled down. The senior soil fertility specialist was a technical advisor to the Peatland Farmers Association.

Soil Management

Work continues on the nine tillage investigation-demonstration sites established as part of the Agri-Food project. An economic component (production costs and returns) has been added. Data for these plots is being computerized for analysis and evaluation.

A crop residue survey was implemented in conjunction with the Manitoba Crop Insurance Corporation. Various questions on tillage and crop residue have been added to the Crop Insurance questionnaire. This data will be collected at three-year intervals and will provide valuable information on cultural practices that contribute to soil degradation.

Maps indicating the degree of erosion potential were produced and distributed to staff with related soil management guidelines. These maps will help staff in advising producers on appropriate soil management practices.

The 300,000 acres of organic soils in the settled areas of the Interlake Region present unique management challenges to producers. Through cooperation with the Manitoba Peatland Farming Association, several management practices were demonstrated, with a focus on preventing wind erosion, fertility, tillage practices and variety testing.

Other Activities

Forty-two on-farm surveys for drainage and pothole consolidation were conducted and ditch designs prepared. Revenues from this service amounted to $1,320. Five irrigation grant applications were processed, and irrigation rebates amounted to about $9,100.

Computerized monitoring of soil moisture is being developed through cooperation between the Atmospheric Environment Service and Environment Canada. In 1988/89, 33 field locations were sampled in spring and fall by department staff. The resulting reports and information from the soil moisture model continues to gain credibility with extension staff and producers.

Work in biological climatological modelling is continuing. This program is an attempt to develop meth-

odologies for predicting the occurrence of plant diseases, insect emergencies and the rate of crop development.

One of the worst floods of the century occurred on the Swan River in May 1988. As a result, an estimated 750,000 cultivated acres were damaged, some severely, by the flood as new drainage channels were formed. Rehabilitation of the damaged areas is expected to take about two years and cost $1.2 million.

Land Utilization and Soil Survey

The goal of this section is to provide the basic soil resource information and assist in the department's input into land use planning for Manitoba.

Soil Survey

The systematic inventory and evaluation of Manitoba soil resources is supported jointly by Manitoba Agriculture and Agriculture Canada. The University of Manitoba's Department of Soil Science provides office and laboratory space and administrative services related to special projects on behalf of the soil survey. The main function continues to be provision of essential soil resource data and related research, and land evaluations for use by the public and government for land use planning and land management.

The 1988/89 Soil Survey inventory program concentrated on detailed resurvey and land evaluation of selected areas in Southern Manitoba. About 135,000 acres (54,600 ha) were resurveyed at a detailed scale of 1:20,000, 110,000 acres (44,500 ha) surveyed at a reconnaissance scale of 1:50,000, and 32,000 acres (13,000 ha) surveyed at a reconnaissance scale of 1:125,000. The surveys included agricultural resurveys for special crop production, soil management and land use planning and assessment in the municipalities of Hanover and Rhineland; for forestry planning and management in the Duck Mountain Forest Reserve; and for environment monitoring and assessment at Thompson.

Detailed soil survey reports were published for the rural municipalities of Grey, Dufferin, Roland, Thompson and Stanley.

Development continued of automated data handling capability for all cartographic information and supporting soil and related landscape data compiled by the soil survey. The change increases the efficiency of the soil survey operation and provides more quantitative soil data to users.

The soil survey is developing a data base for land evaluation through its detailed resurveys and through long-term monitoring programs of soil temperature, soil moisture and climate relations. Soil survey data is used for development of various soil-climate crop growth and yield models for quantitative agricultural land evaluation.

Land Use Planning

Section staff and regional land resource specialists represented agricultural interests in evaluating development of a variety of projects and programs affecting agricultural land, especially on land use issues relating to the Planning Act and provincial land use policies.

Staff provided input into formulation of soil and water policies for Manitoba. They also reviewed and provided suggestions on several development proposals for new golf courses on prime farm lands and in livestock areas. Advice was provided on routings across prime farm lands crossed by highways, including P.T.H. 75 (St. Agathe to Emerson).

The section is carrying out routing studies on a 230,000-volt hydroelectric transmission line from St. Leon to Letellier. Structures are to be mainly on road allowances. Routing studies are starting on 500,000-volt lines from the future Conawapa generating station (Nelson River) to the new Riel converter station (Deacon-Springfield).

Discussions are continuing with Portage la Prairie consultants with respect to the year-round land application of dewatered sewage sludge. The section has taken part in consultations with the technical advisory committee working with the Hazardous Waste Management Corporation. It also contributes to discussions by the technical advisory committee studying the issue of proposed expansion of large-lot residential areas in and around Winnipeg.

In some parts of the province, demand for subdivision of agricultural lands is high. This is due to the recreational value and attractiveness for development in certain areas near the City of Winnipeg. In the Interlake Region producers have formed a local association to address land use issues.

Agricultural Crown Lands

The Agricultural Crown Lands Branch administers the agricultural use of about 1.7 million acres of Provincial Crown land. All but about 50,000 acres are used for the production of forage crops. It is estimated that the annual carrying capacity of these lands would meet the annual forage needs for 25% of the provincial beef herd. Forage leases are allocated to Manitoba farmers and ranchers on the basis of need established by an allocation system.

The branch administers these agricultural leases and permits, and is also responsible for the Crown Land Improvement Program, which provides financial

Table 4

Leases and Permits

Year	1987		1988	
Dispositions	**No.**	**Acres**	**No.**	**Acres**
Forage Leases	2,552	1,570,312	2,547	1,597,566
Cash Rental Leases	221	49,495	215	47,333
Special Leases	9	1,414	1	1,094
Casual Grazing Permits	91	12,155	100	13,610
Renewable Grazing Permits	168	15,524	188	16,653
Renewable Hay Permits	951	88,614	707	32,588
Casual Hay Permits	393	18,863	752	26,527
Total Agricultural Dispositions	4,385	1,756,377	4,510	1,735,371

support to lessees willing to develop Crown land. The direct financing option has been replaced with a lessee-financed program which provides rental adjustments in lieu.

Significant changes have been made to the Lease Allocation and Appeal Process. The changes are intended to ensure that all applicants thoroughly understand the allocation system, and that all applicants have an opportunity to take part in the appeal process. The Unit Transfer Policy was streamlined by eliminating some restrictions to transfers of Crown land with the sale of private parcels.

During the past year special emphasis was placed on improving management of Crown land leases through articles in the "Rangeland Manager" and Land Representative client contact.

Lease and Permit Administration

During 1988/89, the branch administered a total of 4,510 leases and permits, involving 1,735,371 acres. Forage leases comprised 2,547 of those leases and 1,597,566 acres. Other categories included cash rental leases, special leases, casual grazing permits, renewable grazing permits, renewable hay permits and casual hay permits.

During the year 589 parcels of land were advertised for re-allocation. The 1988 forage lease rental rate was $1.38 per animal unit month, plus an amount roughly equal to the real property tax on each parcel. Eighteen forage leases were cancelled for non-payment of rent and two were cancelled for non-use.

Carrying Capacity of Grazing or Hay Lands

The total carrying capacity of Crown lands held under forage lease as of March 31, 1988 was 708,728 animal unit months. The carrying capacity of other Crown lands held under various leases or permits was 36,500 animal unit months, for a total of 745,228. The actual carrying capacity, corrected for the fact that the rated capacity is assessed at 25% less than actual, is estimated to be 931,535 animal unit months. This would meet the annual forage needs of 77,628 beef cows.

Leased Lands Transactions

A lessee may transfer his leased lands to eligible family members or, when a complete or partial unit is sold, the leased land may be transferred to an eligible buyer. In 1988, there were 48 in-family transfers involving 321 parcels of land. One Unit Transfer was approved involving one parcel of land.

Producers who have held land as a Forage or Cash Rental Lease for two years may apply to buy the lands being leased. From the inception of the sales program in 1979 to December 1988, there have been 2,051 applications to purchase. There have been 1,374 parcels deemed saleable, 630 deemed unsaleable and 47 parcels under review; 996 have been sold.

Table 5

Community Pasture Statistics

Pastures in Manitoba	24
Acreage	437,743
Patrons	1,079
Adult Cattle	34,840
Calves	22,745
Breeding Cows	24,235
Horses and Colts	2,359

Local Government District Land

The branch administers 286,789 acres of land under an administrative agreement with nine local government districts. These lands are administered under regular branch policy and are eligible for all programs.

Purchase of Improvements

When a lease expires or is terminated, structures such as fences, shelters, forage stands, corrals and watering facilities are evaluated by the province and purchased by the new lessee if the land is re-leased within one year from the date the lease terminates. Improvements are bought by the province on lands not re-leased and in special situations, such as the death of a lessee.

Agricultural Crown Lands Advisory Committee

A new procedure for receiving appeals was put into place for the 1988/89 advertising and allocation season. Unsuccessful applicants must clearly state reasons and grounds for appeals within 14 days. Previously, appeals received before the deadline were accepted regardless of whether reasons were stated. Once an appeal or review of an allocation is deemed acceptable, all applicants involved in the initial allocation are given an opportunity to have their interest continue provided they indicate their intentions in writing to the committee within 10 days. During 1988 there were 49 appeals or reviews; 25 were upheld, 21 were changed and three were partially changed. Two appeals were disallowed as appellants had insufficient grounds for appeal.

Crown Lands Improvement Program

This program provides financial encouragement to Crown land users to develop tame hay and pasture lands from native areas. Financial assistance of up to $75 per acre for clearing, $22 per acre for breaking and $420 per acre for seed bed preparation is available. Depreciation offset by no increase in rental for up to 13 years is available to farmers willing and able to pay the development cost themselves. During 1988/89 Field Services invoiced 1,739 acres of completed clearing, 3,359 acres of completed breaking and 5,320 acres of completed seed bed preparation. There are still 4,585 acres of windrows to invoice for clearing, 12,778 acres to invoice for breaking and 22,679 acres of seed bed preparation to be invoiced as work is completed.

Agro-land Planning and Management

The roles of the section include land use planning; policy research and development; and soil, land, water and rangeland management. It represents the branch in the interdepartmental Crown land use planning process; ensures that agricultural Crown lands designated are used to their potential; helps to formulate and deliver branch programs and policies; provides assistance to Field Services; coordinates the communications strategy; and acts as the department's liaison on the PFRA Community Pasture Program in Manitoba.

The drought of 1988 resulted in section staff involvement in a variety of activities, including participation on the Drought Monitoring Committee, arranging for the relaxation of land use restrictions on Crown lands, and the release of Wildlife Management Area lands for emergency agricultural use.

PFRA pasture fees in 1988 were 25 cents per head per day for adult livestock, plus two cents per head per day tax levy, for a total fee of 27 cents per head per day. Calves were charged $9 per head per season; breeding fees were $28 per head. (See tables)

Entomology Section

Insect Control

Entomology extension activities aim to increase awareness of safe, effective pest management methods and the hazards of insecticide misuse. In 1988/89 staff responded to 1,712 requests for insect identification and control information from field staff, dealers, applicators and farmers. Twenty-one issues of the Manitoba Insect Report were sent to approximately 1,500 people who either advised on or were directly involved in insect pest management. Insect control bulletins provided economic threshold guideline and control recommendations.

A total of 55 staff days were spent on field surveys to provide early warning of crop pest infestations and to identify research priorities.

Crop Insect Infestations

Grasshoppers — After a two-year decline, grasshopper populations increased in 1988 due to hot, dry weather. Although overall populations were only slightly greater than in 1987, drought-stressed crops were more susceptible to damage, particularly in the Red River Valley. An estimated 10,000 ha (25,000 acres) were sprayed in 1988, compared to 4,000 ha (10,000 acres) in 1987.

Diamondback Moth — 1988 was the most severe year on record for diamondback moth larvae. The infestation began to reach economic threshold levels in late June, and by early August, covered most of Southern Manitoba from Highway 59 to the Saskatchewan border. The Red River Valley was the area most severely affected.

European Corn Borer — Corn borer populations were generally low but approached economic threshold levels in some areas, prompting some spraying activity. The department maintained close contact with Agriculture Canada personnel involved in an ERDA project on the European Corn Borer.

Other Insect Pests — In late July and August, a combination of Bertha armyworm, clover cutworm and beet webworm larvae occurred on canola and flax crops, requiring control measures in Central and Western Manitoba. Severe flea beetle populations found on maturing canola in early August signalled a potential problem on newly-emerging canola crops in 1989.

Russian Wheat Aphid — The branch's 1988 field surveys produced no evidence of Russian Wheat Aphid.

Field Surveys and Monitoring

Grasshoppers — A province-wide survey conducted by the branch in early August of 1988 indicated an increase in both area and severity of grasshopper infestations for 1989. The forecast area of infestation covers approximately three times the area infested in 1988. The greatest increase occurred in Eastern Manitoba.

Bertha Armyworm — According to a field survey conducted in the Swan River area, Bertha armyworm populations remained below economic levels in canola fields. No damage to crops occurred and no spraying activities were required for control.

Wheat Midge — A province-wide survey for wheat midge continued for the fifth consecutive year in co-operation with agricultural representatives. The midge has been present at low levels in all wheat growing areas every year. Overall, the insect has been of minor importance, but could become serious in future.

Wheat Stem Maggot — Limited surveys showed wheat stem maggot damage was less than 1% in the Deloraine-Boissevain area, and from less than 1% to a high of 4% in fields between Crandall and Rapid City. Agricultural representatives reported damage as high as 30%.

Field Research

Wheat Midge — Damage assessments continued to indicate low levels of midge but no significant impact on yield.

Aster Yellow Damage in Carrots and Celery — For the third consecutive year, carrot and celery crops in the Portage area were monitored for leafhopper and aster yellow damage. The project, a co-operative effort of the horticulture, plant pathology and entomology sections, is designed to determine the relationship between leafhopper populations and the amount of loss due to aster yellows.

Sunflower Insect Investigations — The assessment of sunflower heads in the Red River Valley showed sunflower weevil larvae were more numerous than expected, exceeding sunflower moth larvae in numbers.

Minor Use of Pesticides — Of five submissions received from field staff, three were discontinued and two proceeded. The Minor Use Co-ordinating Committee held two meetings.

Municipal Grasshopper Control Assistance Policy — Under this program, municipalities were reimbursed the full price of insecticides applied for grasshopper control on public property. Extremely poor growing conditions necessitated more spraying to prevent grasshoppers from moving from roadsides into adjacent crops. Rebates totalling $77,781 were issued to 17 municipalities.

Pesticides Control

In 1988, 827 retail pesticide dealers and 548 commercial applicators were licensed under the Pesticides and Fertilizers Control Act. New dealers and applicators qualified for licensing by attending training courses and completing written examinations. Applicators are recalled to training courses every four years.

Dealer and Applicator Training — Two one-day pesticide training courses were attended by 85 dealers. One-day courses were also held for aerial applicators (20), ground applicators (30), right-of-way applicators (68), landscape pest control operators (140), Forestry staff (60) and Manitoba Hydro staff (60). A separate training program was held for 13 new veterinarians. A special dealer update session was attended by 100 people.

Dealers and applicators were provided with updated educational material on chemical safety and control of insects, weeds, plant diseases and vertebrate pests.

Enforcement — Of the 143 unlicensed outlets checked, most were found to be out of business; the rest complied with licensing.

Chemical Damage Complaints — The branch received 47 chemical damage complaints related to commercial pesticide application. Complaints continue to be monitored closely to ensure compliance with proper pesticide use guidelines.

Cholinesterase Blood Tests — This service was again offered to pesticide dealers and applicators by

the Entomology Section in co-operation with the Cadham Provincial Laboratory. Under the program, Cadham Lab personnel analyze cholinesterase, a blood component affected by organophosphate insecticides. No significant reduction in cholinesterase levels was found in any of the 17 participants in the 1988/89 program.

Telecommunications Policy Office

The Telecommunications Policy Office assists the Minister responsible for Telecommunications Policy with matters associated with telecommunications and broadcasting policy within Manitoba and related inter-governmental negotiations.

On September 29, 1988, the Hon. Glen Findlay announced a major policy to improve basic telephone service throughout the province. This policy, which will be implemented through the Manitoba Telephone System's $783 million "Service for the Future" program, will eliminate all multi-party lines, expand toll-free calling areas throughout the province, and modernize all switching centres to computer-controlled digital equipment by the end of 1996.

In December, the Minister announced a new policy to allow the construction of cable television distribution systems in smaller rural and northern centres. In the past, all cable distribution systems had to be built and owned by the Manitoba Telephone System. This new policy allows licensed cable television operators to build and own their own distribution systems in towns that did not have cable television service in place when the policy was announced. This has allowed a number of companies to apply to the Canadian Radio-Television and Telecommunications Commission for licences to operate broadcast distribution systems in more than 60 communities throughout rural Manitoba.

A major federal/provincial study on the potential impact of competition in public long-distance telephone service in Canada was published in December 1988. This report was commissioned by federal and provincial ministers responsible for telecommunications to provide an objective assessment of the potential impact of competition in long-distance telephone services. The report was prepared by a task force consisting of regulators and government telecommunications officials from across the country. The Manitoba Telecommunications Policy Office played an important role in ensuring the study fully evaluated the social and economic impacts of changing the current regulatory environment for local and long distance telephone services.